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Important Safety Information

Important:
It is strongly recommended that you read this section carefully before using the projector. These safety and usage instructions will ensure that you enjoy many years of safe use of the projector. Keep this manual for future reference.

Symbols Used

Warning symbols are used on the unit and in this manual to alert you of hazardous situations.

The following styles are used in this manual to alert you to important information.

Note:
Provides additional information on the topic at hand.

Important:
Provides additional information that should not be overlooked.

Caution:
Alerts you to situations that may damage the unit.

Warning:
Alerts you to situations that may damage the unit, create a hazardous environment, or cause personal injury.

Throughout this manual, component parts and items in the OSD menus are denoted in bold font as in this example:
"Push the **Menu** button on the remote control to open the **Main** menu."

General Safety Information

- Do not open the unit case. Aside from the projection lamp, there are no user-serviceable parts in the unit. For servicing, contact qualified service personnel.
- Follow all warnings and cautions in this manual and on the unit case.
- The projection lamp is extremely bright by design. To avoid damage to eyes, do not look into the lens when the lamp is on.
- Do not place the unit on an unstable surface, cart, or stand.
- Avoid using the system near water, in direct sunlight, or near a heating device.
- Do not place heavy objects such as books or bags on the unit.

Verify Installation Location

- To supply power, the 3-blade (with earthing lead) socket should be used to ensure proper grounding and equalized ground potential for all of the equipment in the Projector System.
- The power code provided with the Projector should be used. In case of any missing item, other qualified 3-blade (with earthing lead) power cord can be used as substitution; however, do not use 2-blade power cord.
- Verify if the voltage is stable, grounded properly and there is no electricity leakage.
- Measure total power consumption which should not higher the safety capacity and avoid safety issue and short circuit.
- Turn on Altitude Mode when located in high altitude areas
- The projector can only be installed upright or inverted.
- When installation the bracket, make sure the weight limit is not exceed and firmly secured.
- Avoid installing near air conditioner duct or subwoofer.
- Avoid installing at high temperature, insufficient cooling and heavy dust locations.
- Keep your product away from fluorescent lamps to avoid malfunction caused by IR interference
- The VGA IN connector should be connected to the VGA IN port. Note that it should be inserted tightly, with the screws on both sides securely fastened to ensure proper connection of the signal wire for achieving optimal display effect.
- The AUDIO IN connector should be connected to the AUDIO IN port and CANNOT be connected to AUDIO OUT or other ports like BNC, RCA; otherwise, it will lead to mute output and even DAMAGE the port.
- Install the projector above 200cm to avoid damage.
- The power cord and signal cable should be connected before power on the projector. During the projector starting and operating process, DO NOT insert or remove the signal cable or the power cord to avoid damaging the projector.

Cooling notes

Air outlet

- Make sure the air outlet is 50cm clear of any obstruction to ensure proper cooling.
- Air outlet location should not be in front of the lens of other projector to avoid causing illusions.
- Keep the outlet at least 100cm away from the inlets of other projectors
- The projector generates a massive amount of heat during use. The internal fan dissipates the heat of the projector when shutting down, and such process may continue for a certain period. After the project enters STANDBY MODE status, press the AC power button to turn off the projector and remove the power cord. DO NOT remove the power cord during the shutdown process, as it may cause damage to the projector. In the meantime, the delayed heat radiating will also affect the service life of the projector. The shutdown process may vary depending on the model used. Whatever the case may be, be sure to disconnect the power cord till after the projector enters the STANDBY status.

Air inlet

- Make sure there is no object blocking air input within 30 cm.
- Keep the inlet away from other heat sources
- Avoided heavy dust area

Choosing a Projector

Edge blending application

- Not only brightness, bright balances, lens but stability is important too when choosing a projector.
- A projector need 30 to 60 minutes warm up to adjust properly.
- After lens shift, there should not be any optical distortion such as trapezoidal and barrel shape distortions.
- Quick dis-assemble lens need to be firmly secured, the electric motor cannot be mistakenly shift. The screen should not be offset for long time use or during booting up and shutting down the projector.
- Projector six-axis colors (R,G,B,Y,C,W). Projector adjust functions require: Hue, Saturation, Gain
- Vertical or 360 degree projection application. Needs to VERIFY engineering design of lamp aging to avoid conflict with client.

HDMI Cable

Edge blending signal needs to use digital transfer, the 4 pairs of TMDS transfer impedance require 100 Ω diameter as following to maintain signal quality:

- 5 M : AWG 26
- 10 M : AWG 24
- 15 M : AWG 22
- 20 M : AWG 22
- 25 M : AWG 22

Power Safety

- Only use the supplied power cord.
- Do not place anything on the power cord. Place the power cord where it will not be in the way of foot traffic.
- Remove the batteries from the remote control when storing or not in use for a prolonged period.

Replacing the Lamp

Replacing the lamp can be hazardous if done incorrectly. See *Replacing the Projection Lamp* on page 39 for clear and safe instructions for this procedure. Before replacing the lamp:

- Unplug the power cord.
- Allow the lamp to cool for about one hour.

> ***Caution:***
> *In rare cases the lamp bulb may burn out during normal operation and cause glass dust or shards to be discharged outward from the rear exhaust vent.*
>
> *Do not inhale or do not touch glass dust or shards. Doing so could result in injury.*
>
> *Always keep your face away from the exhaust vent so that you do not suffer from the gas and broken shards of the lamp.*

Cleaning the Projector

- Unplug the power cord before cleaning. See *Cleaning the Projector* page 43.
- Allow the lamp to cool for about one hour.

Regulatory Warnings

Before installing and using the projector, read the regulatory notices in the *Regulatory Compliance* on page 54.

Important Recycle Instructions:

Hg Lamp(s) inside this product contain mercury. This product may contain other electronic waste that can be hazardous if not disposed of properly. Recycle or dispose in accordance with local, state, or federal Laws. For more information, contact the Electronic Industries Alliance at WWW.EIAE.ORG. For lamp specific disposal information check WWW.LAMPRECYCLE.ORG.

Symbol Explanations

DISPOSAL: Do not use household or municipal waste collection services for disposal of electrical and electronic equipment. EU countries require the use of separate recycling collection services.

Main Features

- *Lightweight unit, easy to pack away and transport.*
- *Compatible with all major video standards including NTSC, PAL, and SECAM.*
- *A high brightness rating allows for presentations in daylight or in lit rooms.*
- *Supports resolutions up to UXGA at 16.7 million colors to deliver crisp, clear images.*
- *Flexible setup allows for front, rear projections.*
- *Line-of-vision projections remain square, with advanced keystone correction for angled projections.*
- *Input source automatically detected.*

About this Manual

This manual is intended for end users and describes how to install and operate the DLP projector. Wherever possible, relevant information—such as an illustration and its description—has been kept on one page. This printer-friendly format is both for your convenience and to help save paper, thereby protecting the environment. It is suggested that you only print sections that are relevant to your needs.

Table of Contents

GETTING STARTED 1

Packing Checklist 1
Views of Projector Parts 2
Front-right View 2
Rear view 3
Bottom view 4
Remote Control Parts 5
Remote Control Operating Range 7
Projector and Remote Control Buttons 7

SETUP AND OPERATION 8

Inserting the Remote Control Batteries 8
Starting and Shutting down the Projector 9
Setting an Access Password (Security Lock) 11
Adjusting the Projector Level 13
Adjusting the Keystone 14
Adjusting the Volume 14

ON-SCREEN DISPLAY (OSD) MENU SETTINGS 15

OSD Menu Controls 15
Navigating the OSD 15
Setting the OSD Language 16
OSD Menu Overview 17
OSD Sub-Menu Overview 18
Image Menu 19
Advanced Feature 20
Color Manager 21
Computer Menu 22
Video/Audio Menu 23
Audio 24
Installation I Menu 25
Advanced Feature 26
Installation II Menu 28
Advanced Feature 29
OSD Menu Setting 30
Peripheral Test 30
Lamp Hour Reset 31
3D 32
Network 33
Factory Reset 38
Status 38

MAINTENANCE AND SECURITY 39

Replacing the Projection Lamp 39
Resetting the Lamp 42
Cleaning the Projector 43
Cleaning the Lens 43
Cleaning the Case 43
Using the Physical Lock 44
Using the Kensington® Lock 44
Using the Security Chain Lock 44

TROUBLESHOOTING 45

Common problems and solutions 45
Tips for Troubleshooting 45
LED Error Messages 46
Image Problems 46
Lamp Problems 47

REMOTE CONTROL PROBLEMS 47
AUDIO PROBLEMS 47
HAVING THE PROJECTOR SERVICED 47
HDMI Q & A 48

SPECIFICATIONS 49

SPECIFICATIONS 49
PROJECTION DISTANCE VS. PROJECTION SIZE 50
Projection Distance and Size Table 50
TIMING MODE TABLE 51
PROJECTOR DIMENSIONS (MM) 53

REGULATORY COMPLIANCE 54

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT 54
CAUTION: 54
RF EXPOSURE WARNING 54
CANADA 54
SAFETY CERTIFICATIONS 54

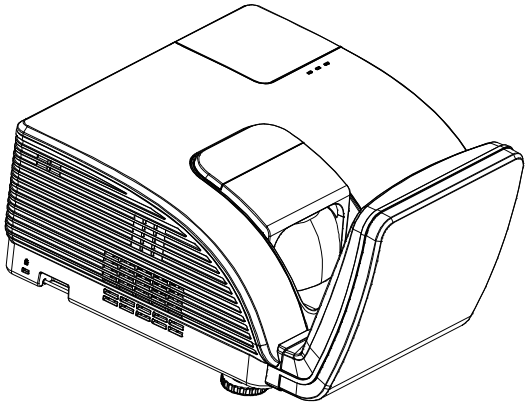
APPENDIX I 55

RS-232C PROTOCOL 55

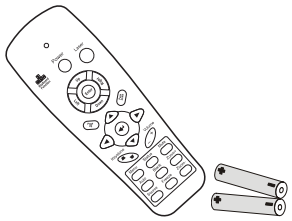
GETTING STARTED

Packing Checklist

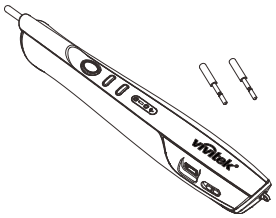
Carefully unpack the projector and check that the following items are included:



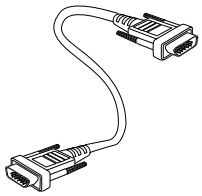
DLP PROJECTOR



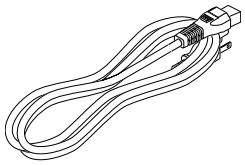
REMOTE CONTROL
(WITH TWO AAA BATTERIES)



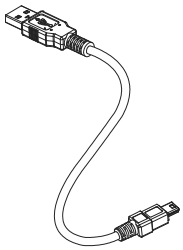
POINTRACER
(WITH TWO
CHANGEABLE TIPS)



VGA CABLE



POWER CORD



USB Cable

CD-ROM
(THIS USER'S MANUAL)

QUICK START GUIDE

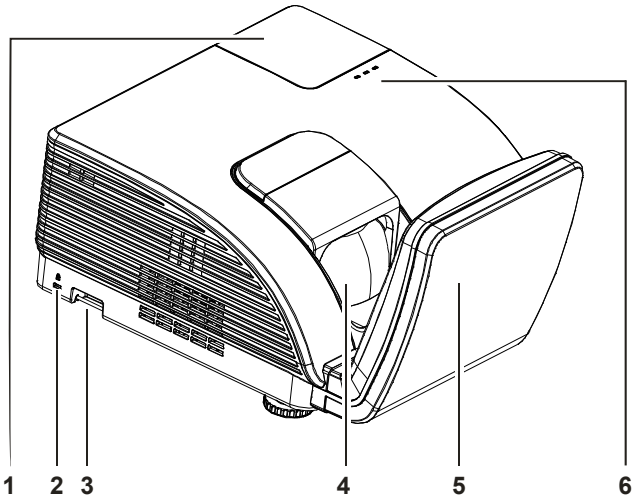
WARRANTY CARD

Contact your dealer immediately if any items are missing, appear damaged, or if the unit does not work. It is recommend that you keep the original packing material should you ever need to return the equipment for warranty service.

Caution:
Avoid using the projector in dusty environments.

Views of Projector Parts

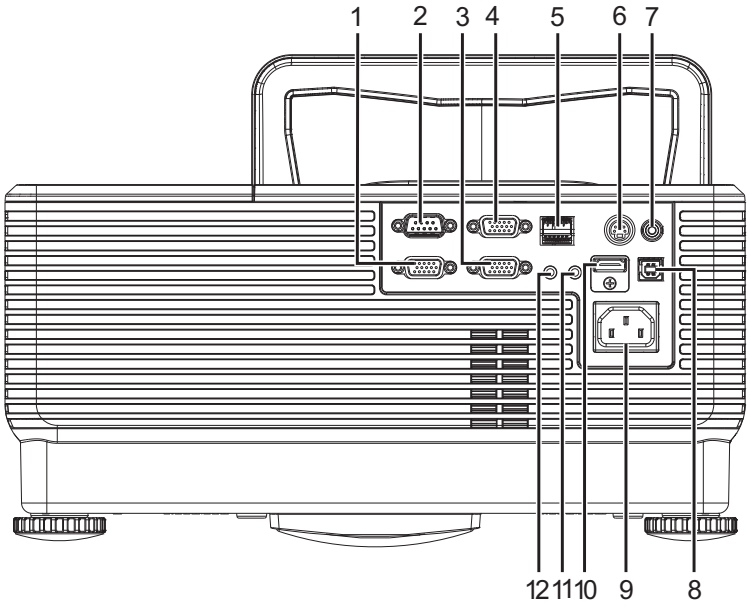
Front-right View



ITEM	LABEL	DESCRIPTION		SEE PAGE:
1.	Lamp cover	Removes cover to replace lamp		
2.	Kensington lock	Secure to permanent object with a Kensington® Lock system		*44*
3.	Security bar	For security and authorized usage		
4.	Lens	Projection Lens		
5.	Aspheric mirror	Reflects images		
6.	WARNING LED	Red	Error code	
	LAMP LED	Red	Error code	
		Flashing	Lamp not ready (Warm-up/shutting down/cooling) (see *LED Error Messages* on page 46)	
	POWER LED	Flashing	Error code	

Important:
Ventilation openings on the projector allow for good air circulation, which keeps the projector lamp cool. Do not obstruct any of the ventilation openings.

Rear view

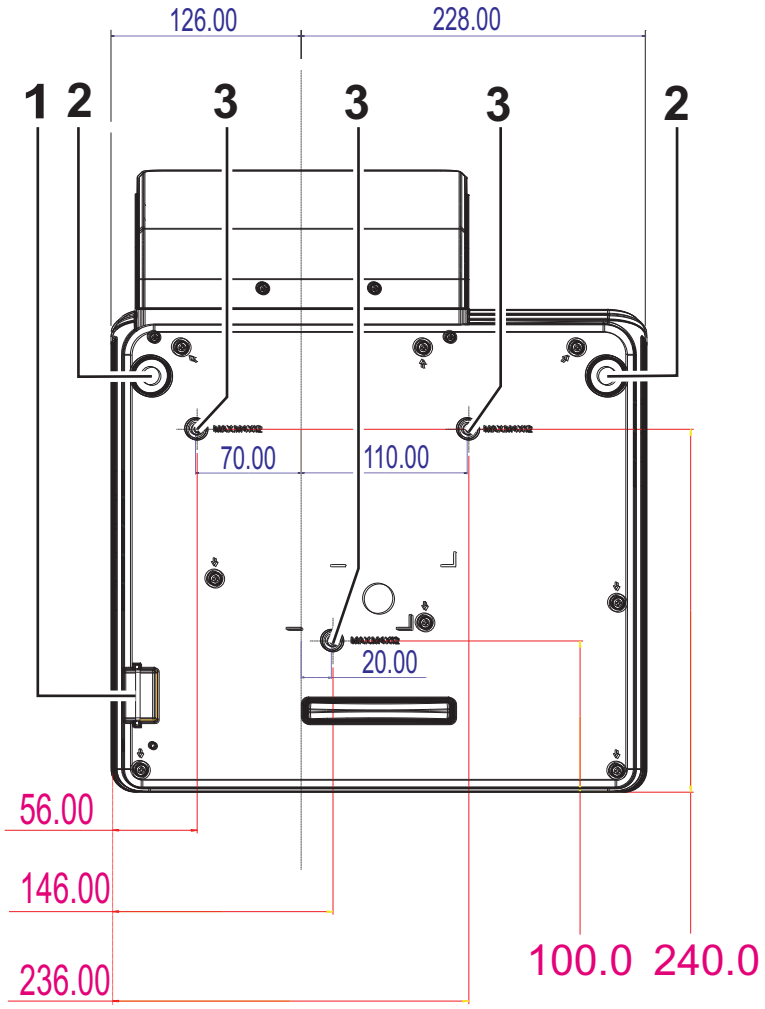


ITEM	LABEL	DESCRIPTION	SEE PAGE:
1.	VGA OUT	Connect the RGB CABLE to a display (Loop Thru only for VGA IN-1)	
2.	RS-232	Connect RS-232 serial port cable for remote control	
3.	VGA – 1	Connect the RGB cable from a computer and components	
4.	VGA – 2	Connect the RGB cable from a computer and components	
5.	RJ – 45	Connect a LAN CABLE from Ethernet	
6.	S-VIDEO IN	Connect the S-Video cable from a video device	
7.	VIDEO IN	Connect the composite cable from a video device	
8.	USB	Connect the USB cable from a computer	
9.	AC IN	Connect the POWER CABLE	***9***
10.	HDMI	Connect the HDMI CABLE from a HDMI device	
11.	AUDIO IN	Connect an audio cable from the input device	
12.	AUDIO OUT	Connect an audio cable from the output device	

Note:
If your video equipment has various input sources, it is recommended to connect in priority of HDMI/DVI, component (thru VGA), S-Video, Composite for better picture quality.

Warning:
As a safety precaution, disconnect all power to the projector and connecting devices before making connections.

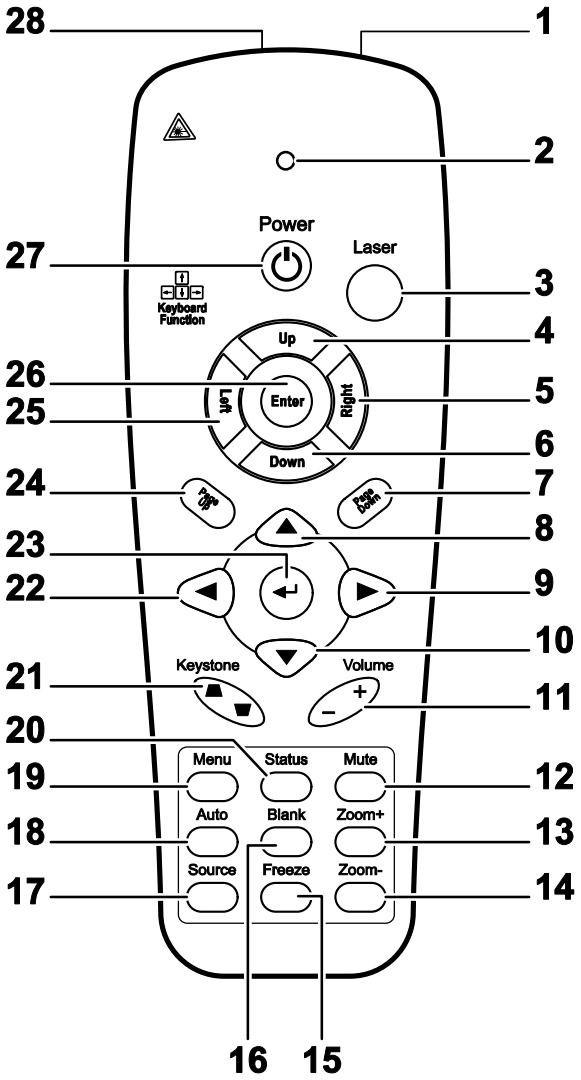
Bottom view



ITEM	LABEL	DESCRIPTION	SEE PAGE:
1.	Security bar	Helps protect the projector from unauthorized use	***44***
2.	Tilt adjustors	Rotate adjusters lever to adjust angle position	
3.	Ceiling support holes	Contact your dealer for information on mounting the projector on a ceiling	

Note:
When installing, ensure that you use only UL Listed ceiling mounts.
For ceiling installations, use approved mounting hardware and M4 screws with a maximum screw depth of 12 mm (0.47 inch).
The construction of the ceiling mount must be of a suitable shape and strength. The ceiling mount load capacity must exceed the weight of the installed equipment, and as an additional precaution be capable of withstanding three times the weight of the equipment (not less than 5.15 kg) over a period of 60 seconds.

Remote Control Parts



Important:

1. *Avoid using the projector with bright fluorescent lighting turned on. Certain high-frequency fluorescent lights can disrupt remote control operation.*

2. *Be sure nothing obstructs the path between the remote control and the projector. If the path between the remote control and the projector is obstructed, you can bounce the signal off certain reflective surfaces such as projector screens.*

3. *The buttons and keys on the projector have the same functions as the corresponding buttons on the remote control. This user's manual describes the functions based on the remote control.*

ITEM	LABEL	DESCRIPTION	SEE PAGE:
1.	IR transmitter	Transmits signals to projector	
2.	Status LED	Lights when the remote control is used	
3.	Laser	Press to operate the on-screen pointer	
4.	Up	Up arrow when connected through USB to a PC	
5.	Right	Right arrow when connected through USB to a PC	
6.	Down	Down arrow when connected through USB to a PC	
7.	Page Down	Page down when connected through USB to a PC	
8.	Up cursor	Navigates and changes settings in the OSD	***15***
9.	Right cursor		
10.	Down cursor		
11.	Volume +/-	Adjusts volume	***14***
12.	Mute	Mutes the built-in speaker	
13.	Zoom+	Zoom in	
14.	Zoom-	Zoom out	
15.	Freeze	Freeze/unfreezes the on-screen picture	
16.	Blank	Makes the screen blank	
17.	Source	Detects the input device	
18.	Auto	Auto adjustment for phase, tracking, size, position	
19.	Menu	Opens the OSD	***15***
20.	Status	Opens the OSD Status menu (the menu only opens when an input device is detected)	***38***
21.	Keystone top/bottom	Corrects image-trapezoid (wider top/bottom) effect	***14***
22.	Left cursor	Navigates and changes settings in the OSD	***15***
23.	Enter	Changes settings in the OSD	
24.	Page Up	Page up when connected through USB to a PC	
25.	Left	Left arrow when connected through USB to a PC	
26.	Enter	Enter key when connected through USB to a PC	
27.	Power	Turns the projector on or off	***9***
28.	Laser	Use as on-screen pointer. **DO NOT POINT IN EYES**.	

Remote Control Operating Range

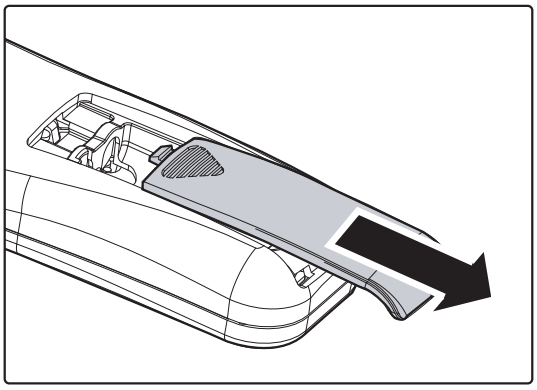
The remote control uses infrared transmission to control the projector. It is not necessary to point the remote directly at the projector. Provided you are not holding the remote perpendicular to the sides or the rear of the projector, the remote will function well within a radius of about 7 meters (23 feet) and 15 degrees above or below the projector level. If the projector does not respond to the remote control, move a little closer.

Projector and Remote Control Buttons

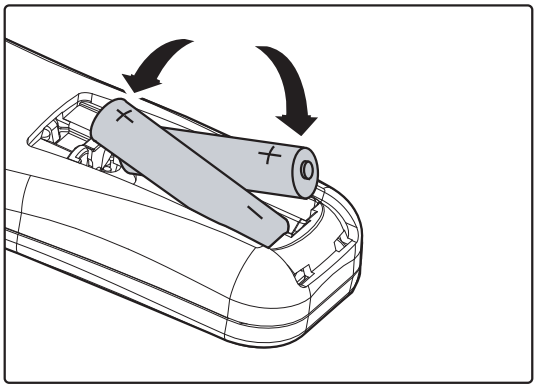
The projector can be operated using the remote control or the buttons on the top of the projector. All operations can be carried out with the remote control; however, the buttons on the projector are limited in use.

Inserting the Remote Control Batteries

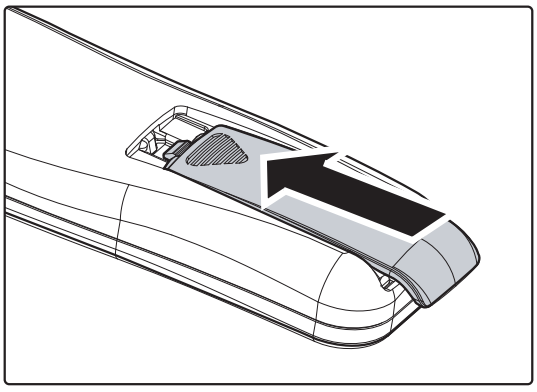
1. Remove the battery compartment cover by sliding the cover in the direction of the arrow.



2. Insert the battery with the positive side facing up.



3. Replace the cover.



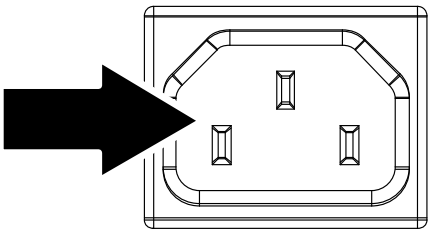
Caution:
1. *Only use AAA batteries (Alkaline batteries are recommended).*

2. *Dispose of used batteries according to local ordinance regulations.*

3. *Remove the batteries when not using the projector for prolonged periods.*

Starting and Shutting down the Projector

1. Connect the power cord to the projector. Connect the other end to a wall outlet. The **POWER** LED on the projector light.



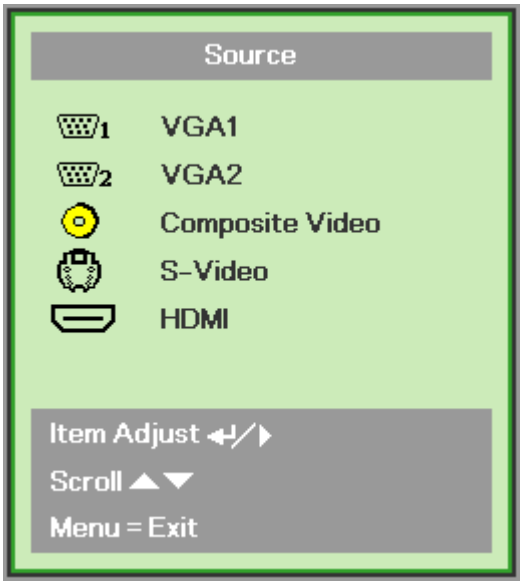
2. Turn on the connected devices.

3. Ensure the **POWER** LED displays a solid orange. Then press the **POWER** button of the remote to turn on the projector.

The projector splash screen displays and connected devices are detected.

See *Setting an Access Password (Security Lock)* on page 11 if security lock is enabled.

4. If more than one input device is connected, press the **SOURCE** button of the remote and use ▲▼ to scroll among devices.
(Component is supported through the RGB to COMPONENT ADAPTER.)



- VGA 1/VGA 2: Analog RGB
  Component: DVD input YCbCr / YPbPr, or HDTV input YPbPr via HD15 connector
- Composite Video: Traditional composite video
- S-Video: Super video (Y/C separated)
- HDMI: HDMI, DVI

5. When the "Power Off? /Press Power again" message appears, press the **POWER** button. The projector turns off.

Caution:
Do not unplug the power cord until the POWER LED change to orange–indicating the projector has cooled down.

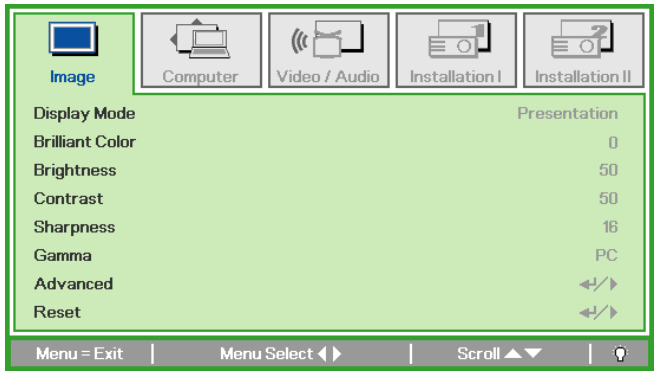
Setting an Access Password (Security Lock)

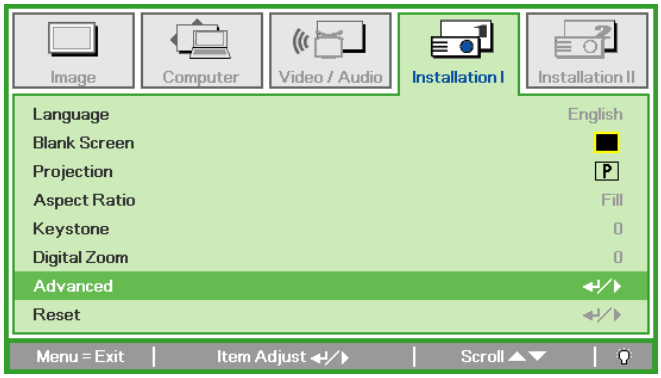
You can use the four (arrow) buttons to set a password and prevent unauthorized use of the projector. When enabled, the password must be entered after you power on the projector. (See *Navigating the OSD* on page 15 and *Setting the OSD Language* on page 16 for help on using OSD menus.)

Important:
Keep the password in a safe place. Without the password, you will not be able to use the projector. If you lose the password, contact your reseller for information on clearing the password.

1. Press the **MENU** button to open the OSD menu.

2. Press the cursor ◄► button to move to the **Installation I** menu, press the cursor ▲▼ button to select **Advanced**.

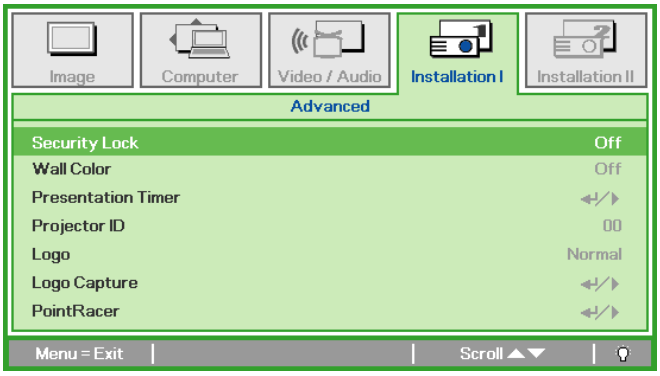




3. Press the cursor ▲▼ button to select **Security Lock**.

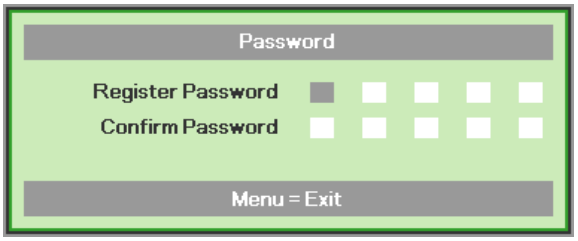
4. Press the cursor ◄► button to enable or disable security lock function.

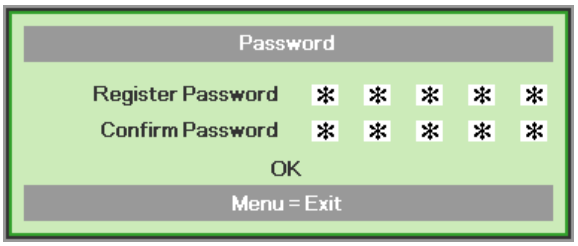
A password dialog box automatically appears.



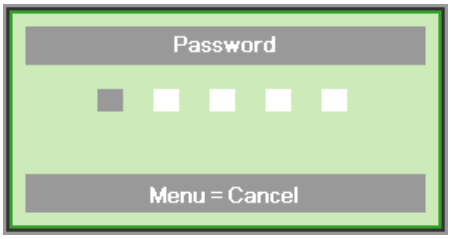
5. You can use the cursor buttons ▲▼◄► either on keypad or IR remote control for password entry. You can use any combination including the same arrow five times, but not less than five.

Press the cursor buttons in any order to set the password. Push the **MENU** button to exit the dialog box.





6. The password confirm menu appears when user presses the power-on key in case the **Security Lock** is enabled.
Enter the password in the order you set it at step 5. In case you forget the password, please contact the service center.
The service center will validate the owner and help reset the password.

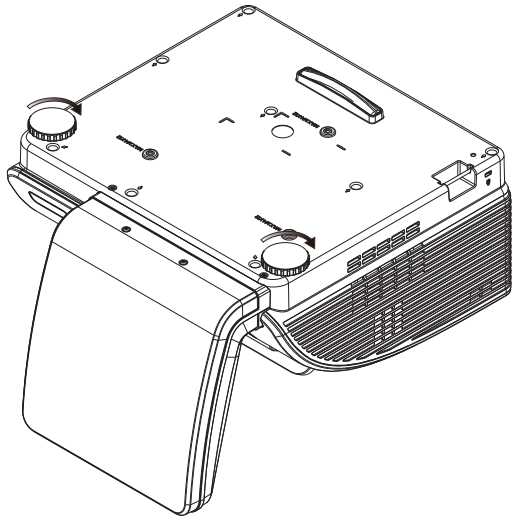


Adjusting the Projector Level

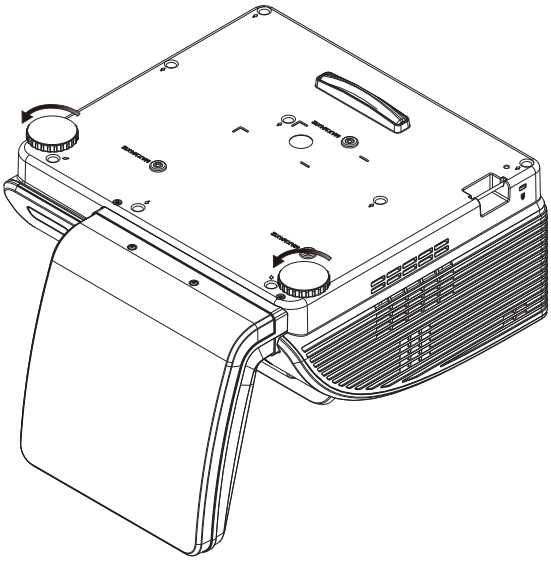
Take note of the following when setting up the projector:

- *The projector table or stand should be level and sturdy.*
- *Position the projector so that it is perpendicular to the screen.*
- *Remove the Back Foot Holder on the rear adjuster foot before adjusting the projection angle.*
- *Ensure the cables are in a safe location. You could trip over them.*

1. To raise the level of the projector, twist the adjusters clockwise.

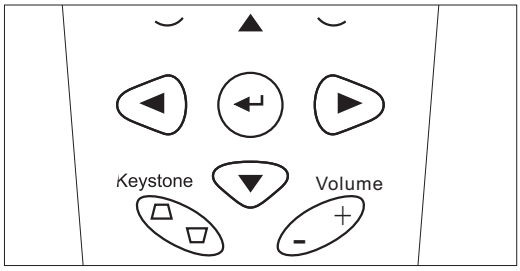


2. To lower the level of the projector, lift the projector and twist the adjusters counter clockwise.



Adjusting the Keystone

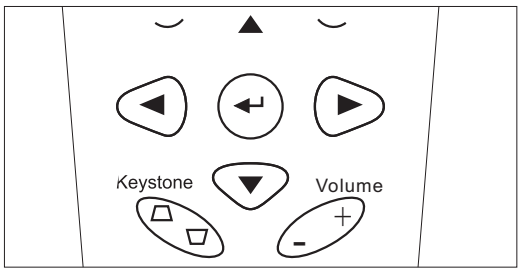
1. Use the **KEYSTONE** buttons the remote control to correct image-trapezoid (wider top or bottom) effect.



2. The keystone control appears on the display.

Adjusting the Volume

1. Press the **Volume** +/- buttons on the remote control.
The volume control appears on the display.



2. Press the **MUTE** button to turn off the volume

ON-SCREEN DISPLAY (OSD) MENU SETTINGS

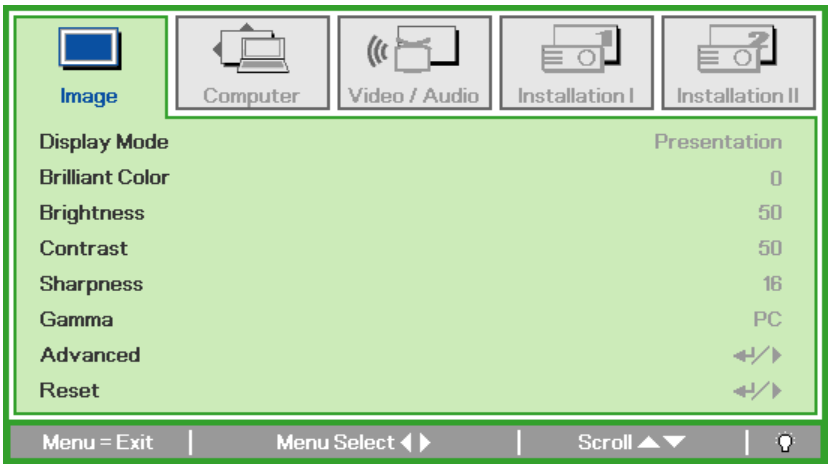
OSD Menu Controls

The projector has an OSD that lets you make image adjustments and change various settings.

Navigating the OSD

You can use the remote control cursor buttons or the buttons on the top of the projector to navigate and make changes to the OSD. The following illustration shows the corresponding buttons on the projector.

1. To enter the OSD, press the **MENU** button.
2. There are five menus. Press the cursor ◄► button to move through the menus.
3. Press the cursor ▲▼ button to move up and down in a menu.
4. Press ◄► to change values for settings.
5. Press **MENU** to close the OSD or leave a submenu.

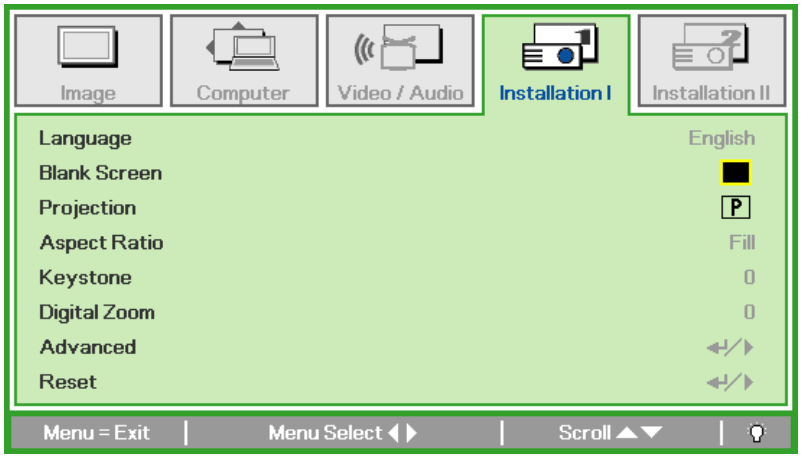


Note:
Depending on the video source, not all items in the OSD are available. For example, the ***Horizontal/Vertical Position*** *items in the* ***Computer*** *menu can only be modified when connected to a PC. Items that are not available cannot be accessed and are grayed out.*

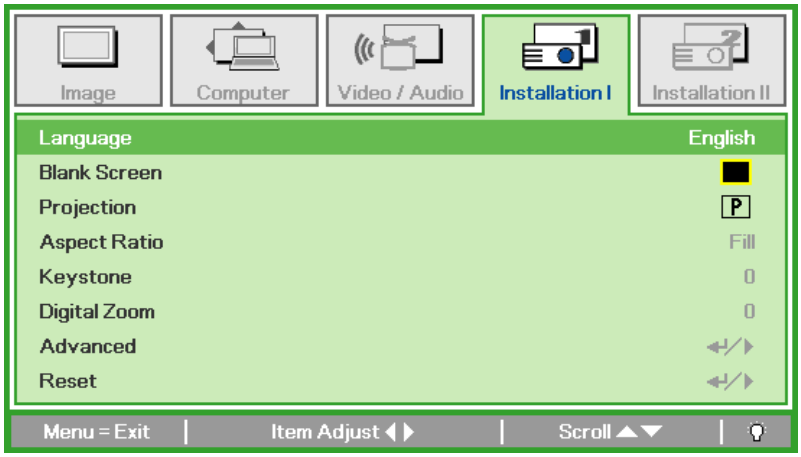
Setting the OSD Language

Set the OSD language to your preference before continuing.

1. Press the **MENU** button. Press the cursor ◄► button to navigate to Installation I.



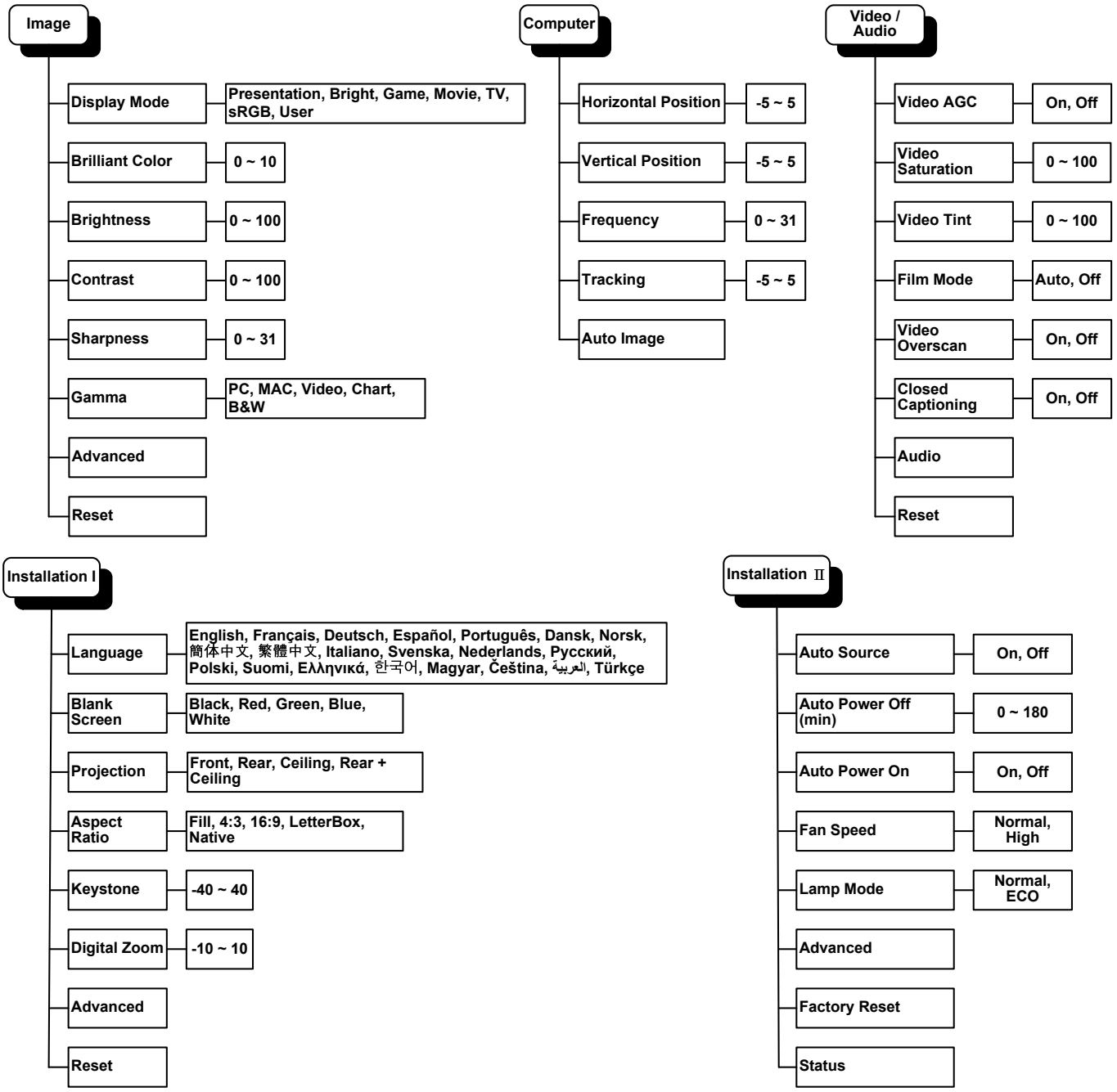
2. Press the cursor ▲▼ button until **Language** is highlighted.



3. Press the cursor ◄► button until the language you want is highlighted.
4. Press the **MENU** button twice to close the OSD.

OSD Menu Overview

Use the following illustration to quickly find a setting or determine the range for a setting.



OSD Sub-Menu Overview

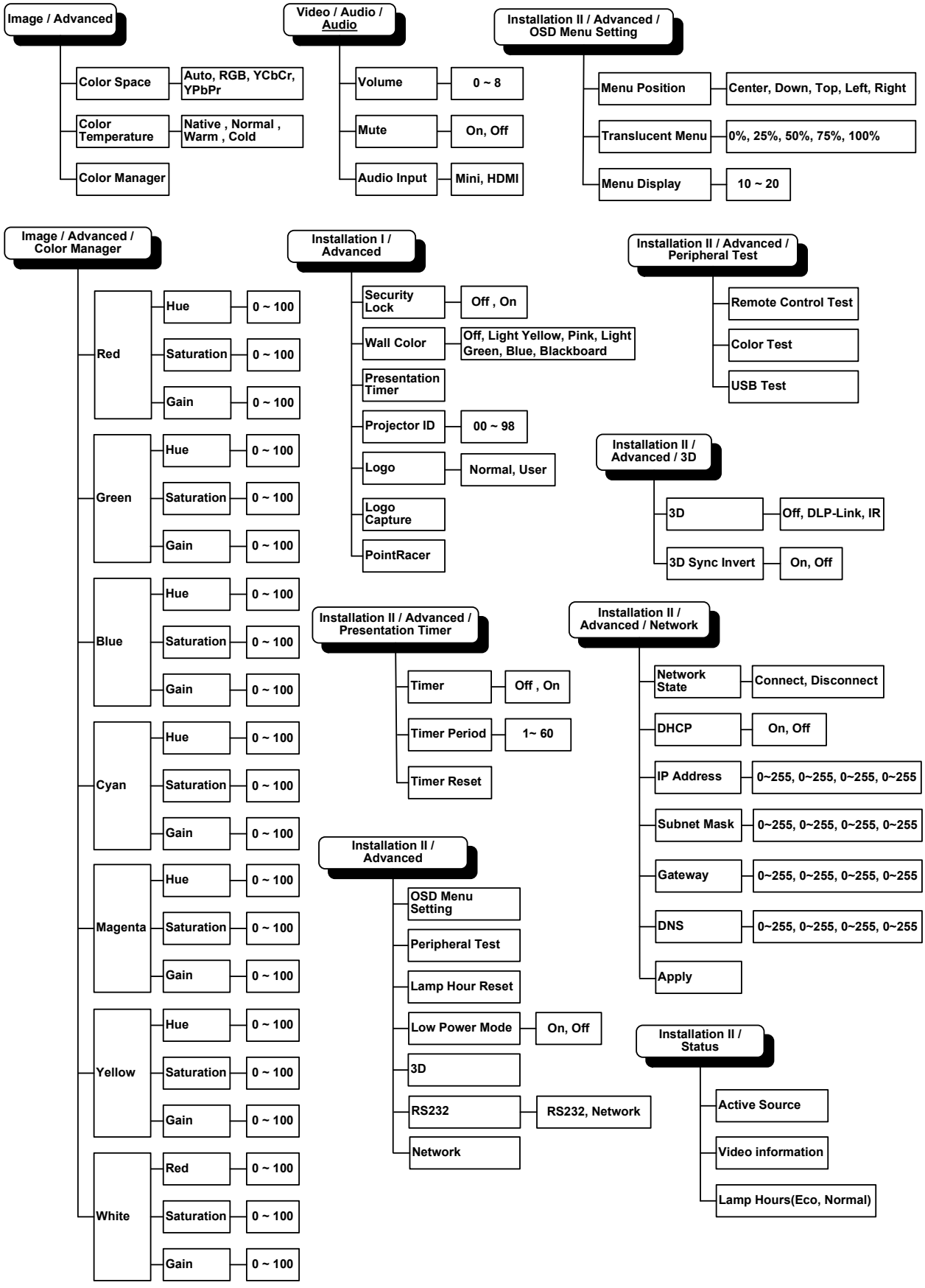
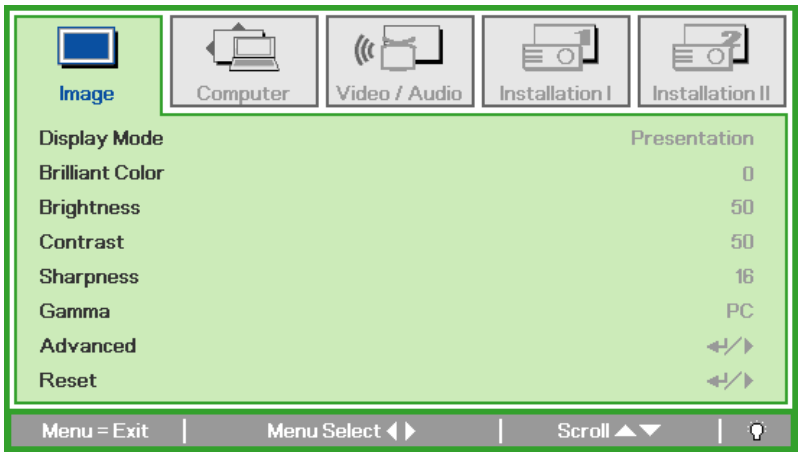


Image Menu

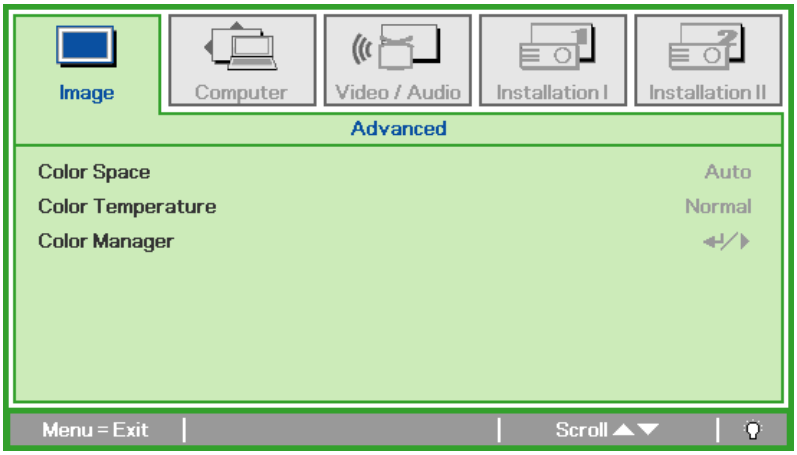
Press the **MENU** button to open the **OSD** menu. Press the cursor ◄► button to move to the **Image Menu**. Press the cursor ▲▼ button to move up and down in the **Image** menu. Press ◄► to change values for settings.



ITEM	DESCRIPTION
Display Mode	Press the cursor ◄► button to set the Display Mode.
Brilliant Color	Press the cursor ◄► button to adjust the Brilliant Color value.
Brightness	Press the cursor ◄► button to adjust the display brightness.
Contrast	Press the cursor ◄► button to adjust the display contrast.
Sharpness	Press the cursor ◄► button to adjust the display sharpness level.
Gamma	Press the cursor ◄► button to adjust the gamma correction of the display.
Advanced	Press ↵ (Enter) / ► to enter the Advanced menu. See *Advanced Feature* on page 20.
Reset	Press ↵ (Enter) / ► to reset all settings to default values.

Advanced Feature

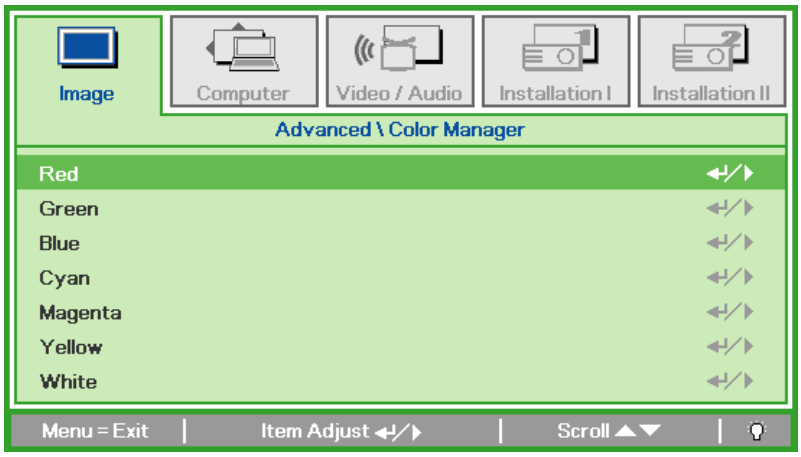
Press the **Menu** button to open the **OSD** menu. Press ◄► to move to the **Image** menu. Press ▼▲ to move to the **Advanced** menu and then press **Enter** or ►. Press ▼▲ to move up and down in the **Advanced** menu.



ITEM	DESCRIPTION
Color Space	Press the cursor ◄► button to adjust the color space.
Color Temperature	Press the cursor ◄► button to adjust the color temperature.
Color Manager	Press ↵ (Enter) / ► to enter the color manager menu. See page 21 for more information on *Color Manager*.

Color Manager

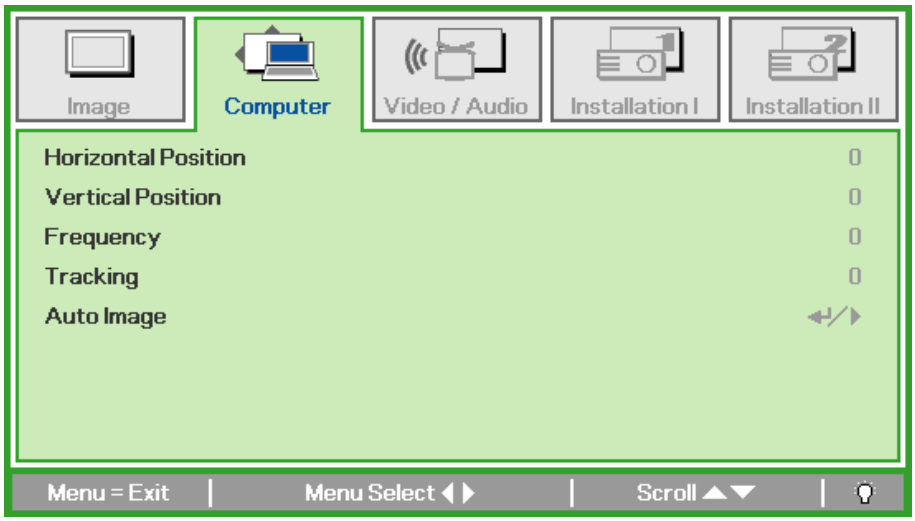
Press ↵ (Enter) / ► to enter the **Color Manager** sub menu.



ITEM	DESCRIPTION
Red	Select to enter the Red Color Manager. Press the ◄► buttons to adjust the Hue, Saturation, and Gain.
Green	Select to enter the Green Color Manager. Press the ◄► buttons to adjust the Hue, Saturation, and Gain.
Blue	Select to enter the Blue Color Manager. Press the ◄► buttons to adjust the Hue, Saturation, and Gain.
Cyan	Select to enter the Cyan Color Manager. Press the ◄► buttons to adjust the Hue, Saturation, and Gain.
Magenta	Select to enter the Magenta Color Manager. Press the ◄► buttons to adjust the Hue, Saturation, and Gain.
Yellow	Select to enter the Yellow Color Manager. Press the◄► buttons to adjust the Hue, Saturation, and Gain.
White	Select to enter the White Color Manager. Press the ◄► buttons to adjust the Red, Green, and Blue.

Computer Menu

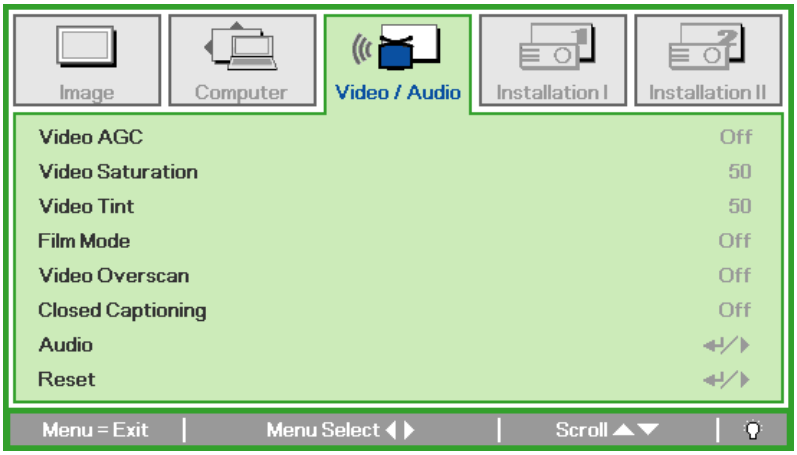
Press the **MENU** button to open the **OSD** menu. Press the cursor ◄► button to move to the **Computer** menu. Press the cursor ▲▼ button to move up and down in the computer menu. Press ◄► to change values for settings.



ITEM	DESCRIPTION
Horizontal Position	Press the cursor ◄► button to adjust the display position to left or right.
Vertical Position	Press the cursor ◄► button to adjust the display position to up or down.
Frequency	Press the cursor ◄► button to adjust the A/D sampling clock.
Tracking	Press the cursor ◄► button to adjust the A/D sampling dot.
Auto Image	Press ↵ (Enter) / ► to automatically adjustment for phase, tracking, size and position.

Video/Audio Menu

Press the **MENU** button to open the **OSD** menu. Press the cursor ◄► button to move to the **Video/Audio** menu. Press the cursor ▲▼ button to move up and down in the **Video/Audio** menu. Press ◄► to change values for settings.

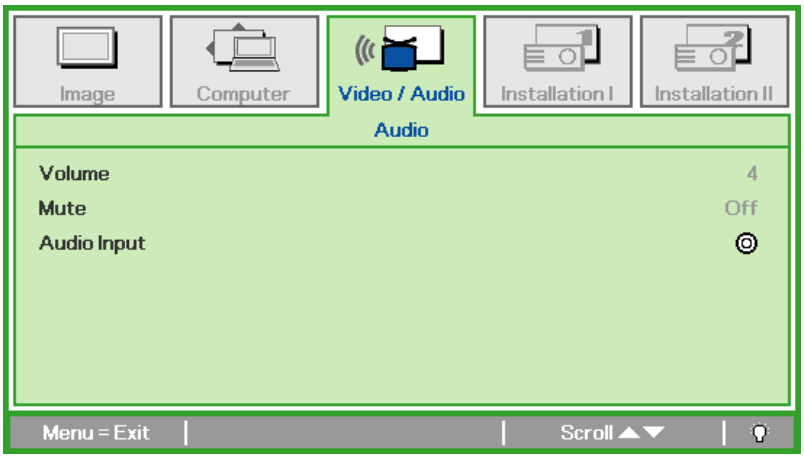


ITEM	DESCRIPTION
Video AGC	Press the ◄► buttons to enable or disable the Automatic Gain Control for video source.
Video Saturation	Press the ◄► buttons to adjust the video saturation.
Video Tint	Press the ◄► buttons to adjust the video tint/hue.
Film Mode	Press the ◄► buttons to select a different film mode.
Video Overscan	Press the ◄► buttons to enable or disable video over scan.
Closed Captioning	Press the ◄► buttons to enable or disable Closed Captioning
Audio	Press ↵ (Enter) / ► to enter the Audio menu. See *Audio* on page 24.
Reset	Press ↵ (Enter) / ► to reset all settings to default values.

Note:
Video jagging may occur when playing interlace video. To overcome this issue, open the Video / Audio menu and adjust the Film Mode feature.

Audio

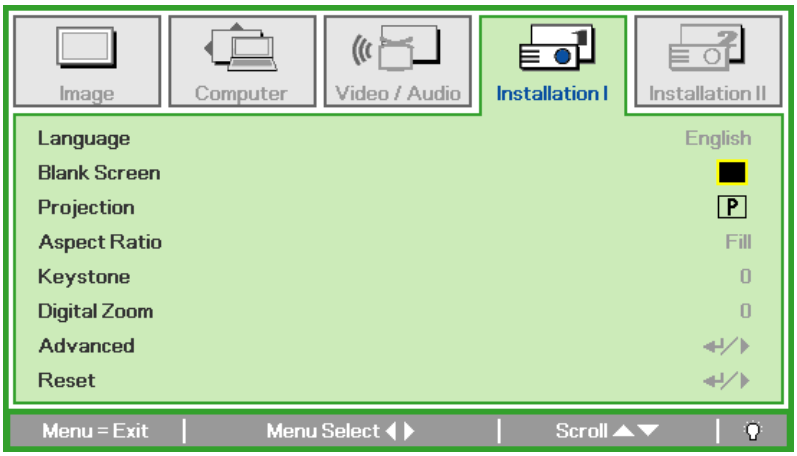
Press ↵ (Enter) / ► to enter the **Audio** sub menu.



ITEM	DESCRIPTION
Volume	Press the ◄► buttons to adjust the audio volume.
Mute	Press the ◄► buttons to turn on or off the speaker.
Audio Input	Press the cursor ◄► button to select audio input.

Installation I Menu

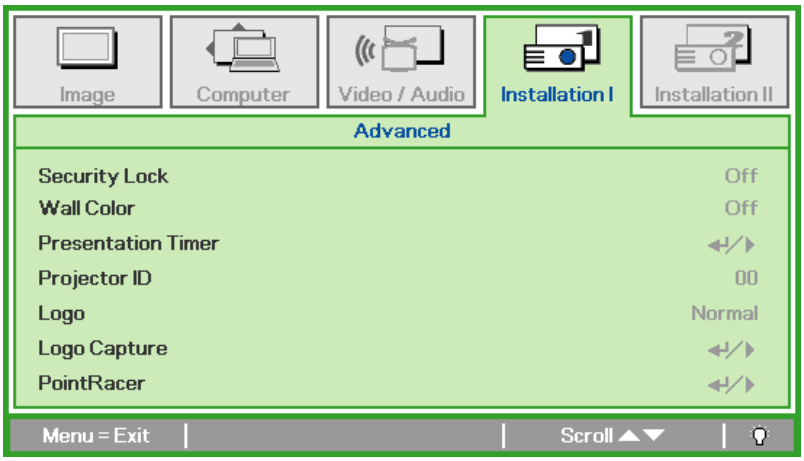
Press the **MENU** button to open the **OSD** menu. Press the cursor ◄► button to move to the **Installation I** menu. Press the cursor ▲▼ button to move up and down in the **Installation I** menu. Press ◄► to change values for settings.



ITEM	DESCRIPTION
Language	Press the cursor ◄► button to select a different localization Menu.
Blank Screen	Press the cursor ◄► button to select different color to blank the screen.
Projection	Press the cursor ◄► button to choose from four projection methods:
Aspect Ratio	Press the cursor ◄► button to adjust the video aspect ratio.
Keystone	Press the cursor ◄► button to adjust the display keystone.
Digital Zoom	Press the cursor ◄► button to adjust the Digital Zoom menu.
Advanced	Press ↵ (Enter) / ► to enter the Advanced menu. See *Advanced Feature* on page 26.
Reset	Press ↵ (Enter) / ► to reset all settings to default values (expect Language and Security Lock).

Advanced Feature

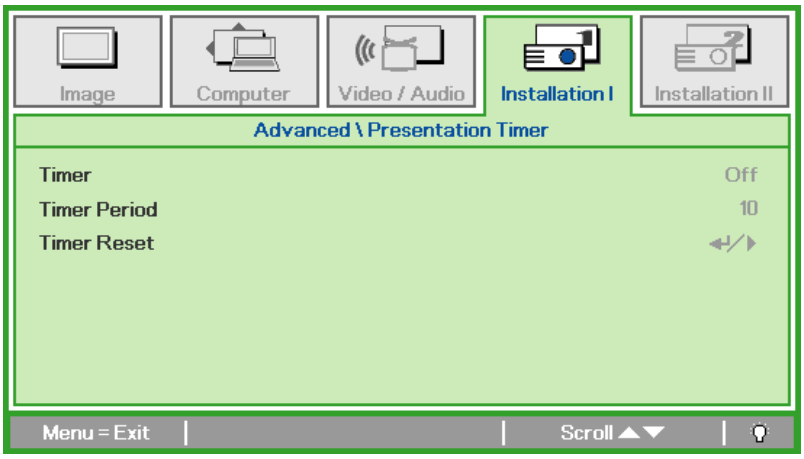
Press the **Menu** button to open the **OSD** menu. Press ◄► to move to the **Installation I** menu. Press ▲▼ to move to the **Advanced** menu and then press **Enter** or ►. Press ▲▼ to move up and down in the **Advanced** menu. Press ◄► to change values for setting.



ITEM	DESCRIPTION
Security Lock	Press the cursor ◄► button to enable or disable security lock function.
Wall Color	Press the cursor ◄► button to enable or disable wall color function.
Presentation Timer	Press ↵ (Enter) / ► to the Presentation Timer menu. See *Presentation Timer* on page 27.
Projector ID	Press the cursor ◄► button to adjust a two digit projector ID from 00 through 98.
Logo	Press ◄► to select the screen to display during startup.
Logo Capture	Press ↵ (Enter) / ► to capture a displayed screen to use as the startup screen.
PointRacer	Press (Enter) / ► to enter the PointRacer menu. See *PointRacer* on page 27

Presentation Timer

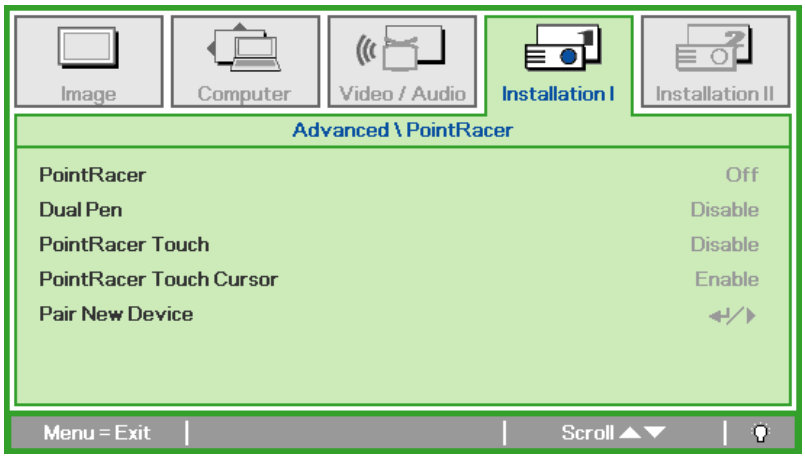
The Presentation Timer function can indicate the presentation time on the screen to help you achieve better time management when giving presentations.



ITEM	DESCRIPTION
Timer	Press the cursor ◄► button to enable or disable presentation timer.
Timer Period	Press the cursor ◄► button to select timer period.
Timer Reset	Press ↵ (Enter) / ► to reset the timer settings.

PointRacer

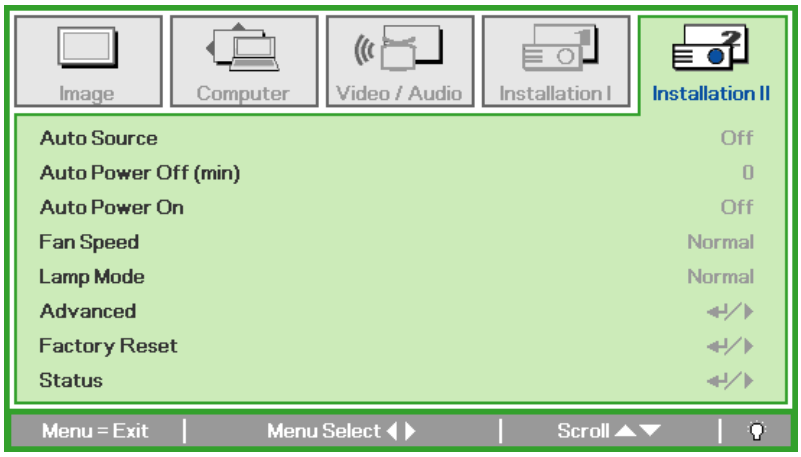
Press ↵ (Enter) / ► to enter the **PointRacer** sub menu.



ITEM	DESCRIPTION
PointRacer	Press the cursor ◄► button to enable or disable PointRacer function.
Dual Pen	Press the cursor ◄► button to enable or disable Dual Pen function.
PointRacer Touch	Press the cursor ◄► button to enable or disable PointRacer Touch function.
PointRacer Touch Cursor	Press the cursor ◄► button to enable or disable PointRacer Touch Cursor function.
Pair New Device	Press ↵ (Enter) / ► to pair a new pen.

Installation II Menu

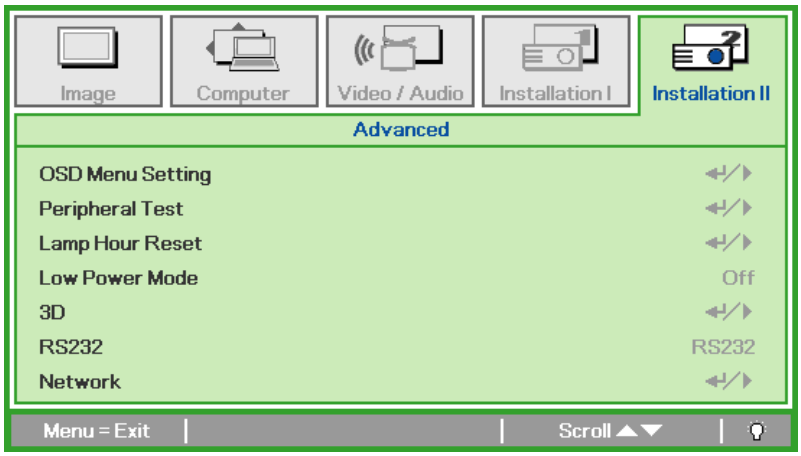
Press the **MENU** button to open the **OSD** menu. Press the cursor ◄► button to move to the **Installation II** menu. Press the cursor ▲▼ button to move up and down in the Installation II menu.



ITEM	DESCRIPTION
Auto Source	Press the cursor ◄► button to enable or disable automatic source detection.
Auto Power Off (min.)	Press the cursor ◄► button to enable or disable automatic shutdown of lamp when no signal.
Auto Power On	Press the cursor ◄► button to enable or disable automatic power On when AC power is supplied.
Fan Speed	Press the cursor ◄► button to toggle between Normal and High fan speeds. **Note**: We recommend selecting high speed in high temperatures, high humidity, or high altitude (higher than 1500m/4921ft) areas.
Lamp Mode	Press the cursor ◄► button to select the lamp mode for higher brightness or lower brightness to save lamp life.
Advanced	Press ↵ (Enter) / ► to enter the Advanced menu. See *Advanced Feature* on page 29.
Factory Reset	Press ↵ (Enter) / ► to reset all items to factory preset values.
Status	Press ↵ (Enter) / ► to enter the Status menu. See page 38 for more information on *Status*.

Advanced Feature

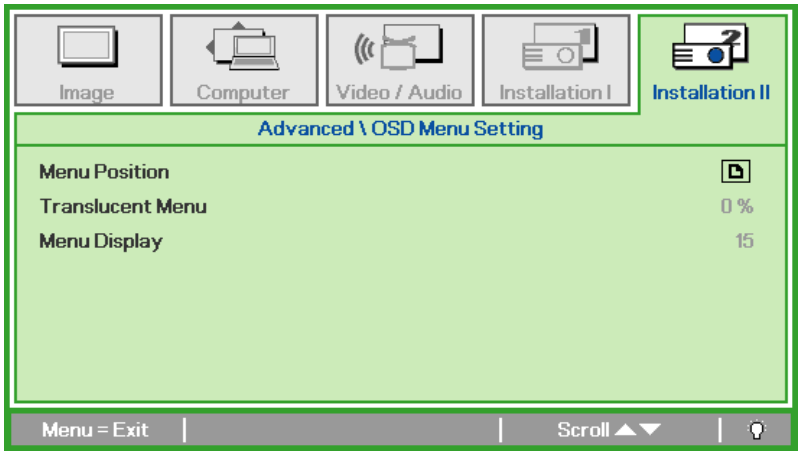
Press the **Menu** button to open the **OSD** menu. Press ◄► to move to the **Installation II** menu. Press ▲▼ to move to the **Advanced** menu and then press **Enter** or ►. Press ▲▼ to move up and down in the **Advanced** menu. Press ◄► to change values for setting.



ITEM	DESCRIPTION
OSD Menu Setting	Press Enter / ► to enter the OSD setting menu. See page 30 for more information on *OSD Menu Setting*.
Peripheral Test	Press Enter/ ► to enter the Peripheral Test menu. See page 30 for more information on *Peripheral Test*.
Lamp Hour Reset	After replacing the lamp, this item should be reset. See page 31 for more information on *Lamp Hour Reset.*
Low Power Mode	Press ◄► to turn Low Power Mode on or off.
3D	Press ◄► to disable or enable different 3D modes.
RS232	Press ◄► to select RS232 (remote) or Network (LAN) mode depending on projector connection method.
Network	Press ↵ (Enter) / ► to enter the Network menu. See page 33 for more information on *Network*.

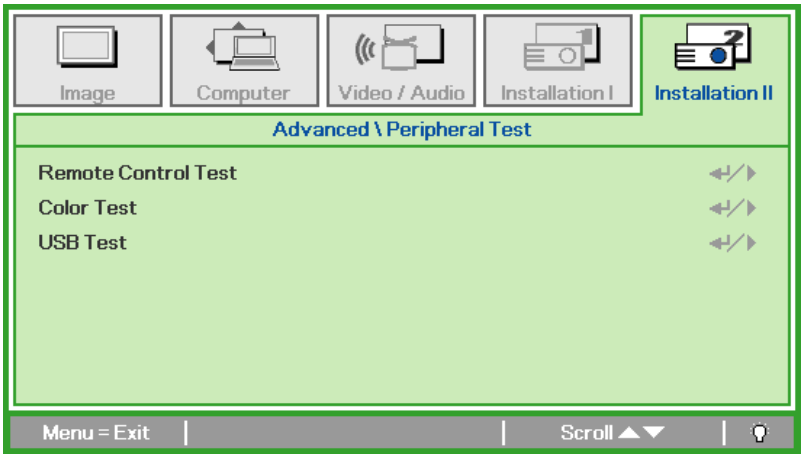
Note:
To enjoy the 3D function, first enable the Play Movie in 3D setting found in your DVD device under the 3D Disc Menu.

OSD Menu Setting



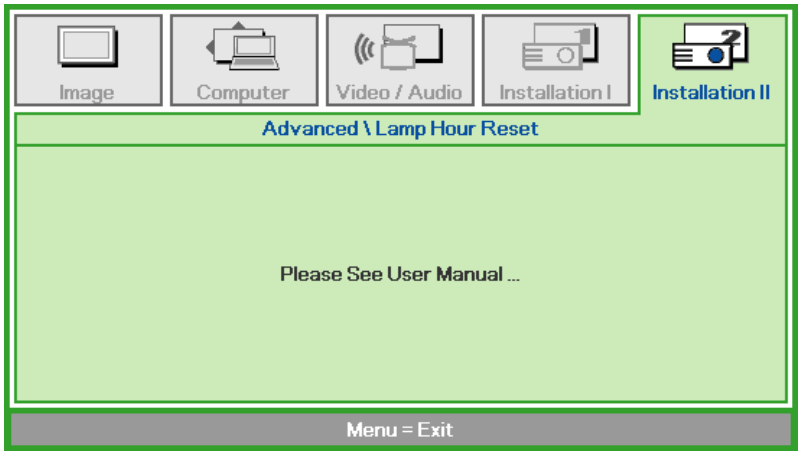
ITEM	DESCRIPTION
Menu Position	Press ◄► button to select different OSD location.
Translucent Menu	Press ◄► button to select OSD background translucent level.
Menu Display	Press ◄► button to select OSD timeout delay.

Peripheral Test



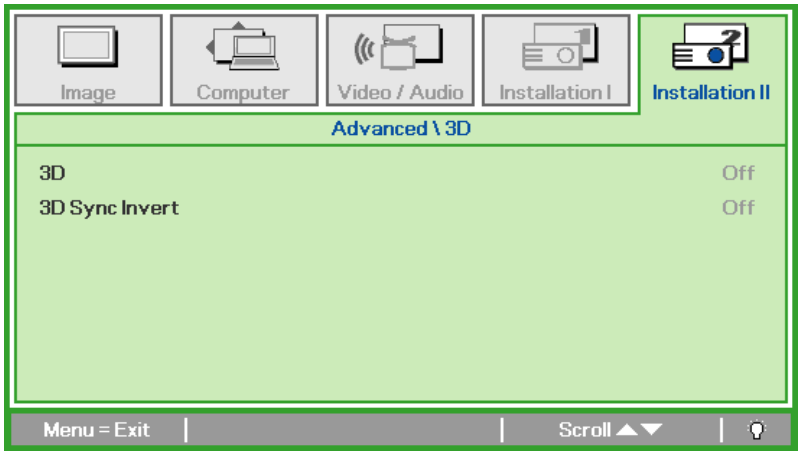
ITEM	DESCRIPTION
Remote Control Test	Press ↵ (Enter) / ► to test the IR remote controller for diagnostic.
Color Test	Press ↵ (Enter) / ► to select different colors on screen.
USB Test	Press ↵ (Enter) / ► to test the USB connection with connected PC.

Lamp Hour Reset



Please refer to *Lamp Hour Reset* on page 42 to reset the lamp hour counter.

3D



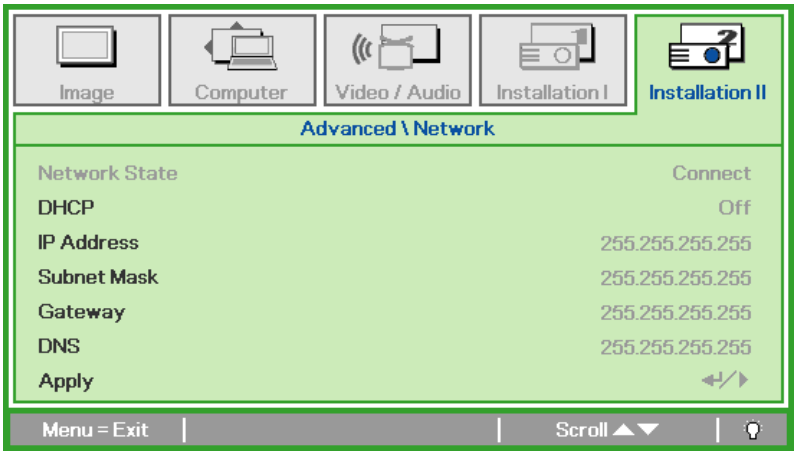
ITEM	DESCRIPTION
3D	Press ◄► to select Off, DLP-Link or IR.
3D Sync Invert	Press ◄► to turn 3D Sync Invert On or Off.

Note:

1. *The 3D OSD menu item is gray if there is no appropriate 3D source. This is the default setting.*
2. *When the projector is connected to an appropriate 3D source, the 3D OSD menu item is enabled for selection.*
3. *Use 3D glasses to view a 3D image.*
4. *You need 3D content from a 3D DVD or 3D media file.*
5. *You need to enable the 3D source (some 3D DVD content may have a 3D on-off selection feature).*
6. *You need DLP link 3D or IR 3D shutter glasses. With IR 3D shutter glasses, you need to install a driver on your PC and connect a USB emitter.*
7. *The 3D mode of the OSD needs to match the type of glasses (DLP link or IR 3D).*
8. *Power on the glasses. Glasses normally have a power on -off switch.*
   Each type of glasses has their own configuration instructions. Please follow the configuration instructions that come with your glasses to finish the setup process.

Note:
Since different types of glass (DLP link or IR shutter glass) have their own setting instructions, Please follow the guide to finish the setup process.

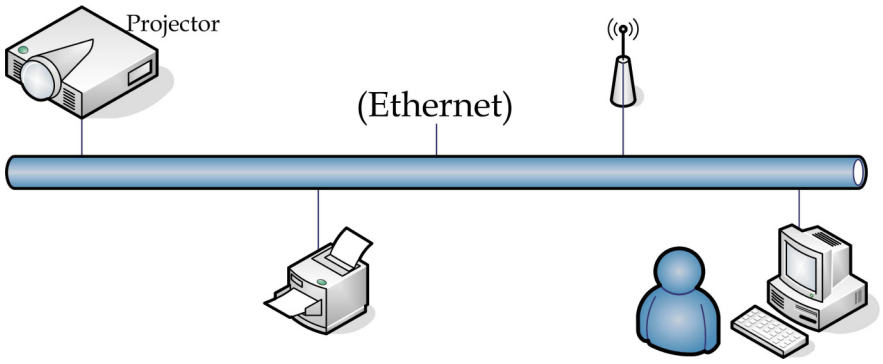
Network



ITEM	DESCRIPTION
Network State	Displays the network connection status.
DHCP	Press ◄► to turn DHCP On or Off. **Note:** If you select DHCP Off, complete the IP Address, Subnet Mask, Gateway, and DNS fields.
IP Address	Enter a valid IP address if DHCP is turned off.
Subnet Mask	Enter a valid Subnet Mask if DHCP is turned off.
Gateway	Enter a valid Gateway address if DHCP is turned off.
DNS	Enter a valid DNS name if DHCP is turned off.
Apply	Press ↵ (Enter) / ► to confirm settings.

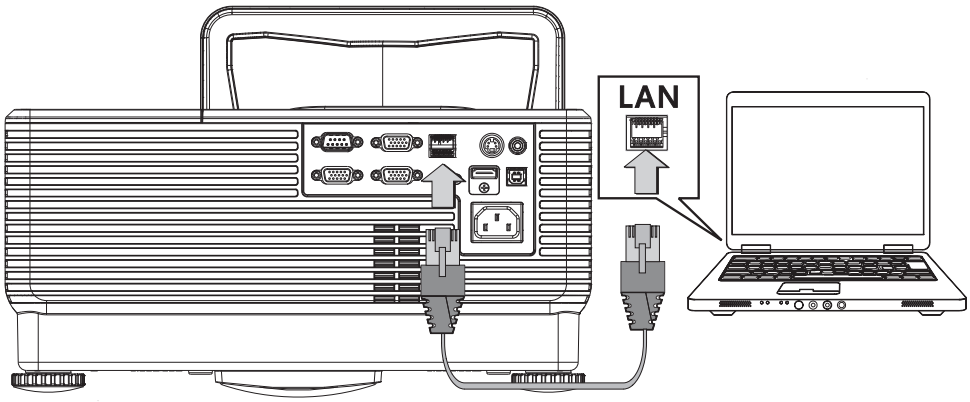
For simplicity and ease of operation, the projector provides diverse networking and remote management features.

The LAN/RJ45 function of the projector through a network, such as remotely manage: Power On/Off, Brightness and Contrast settings. Also, projector status information, such as: Video-Source, Sound-Mute, etc.

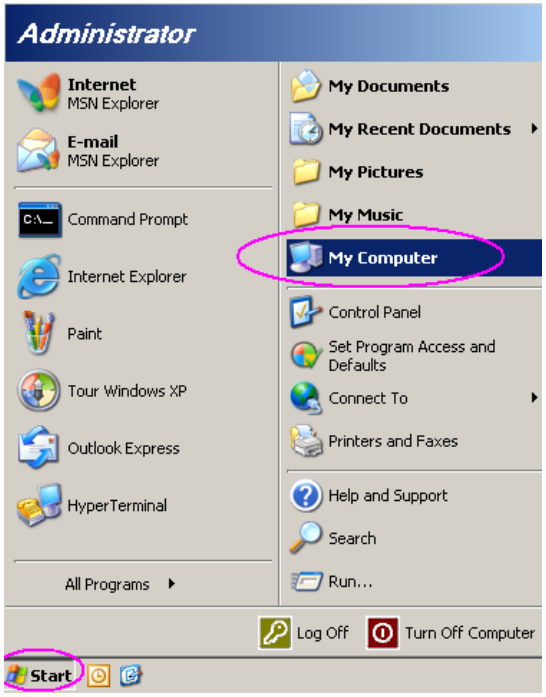


LAN_RJ45

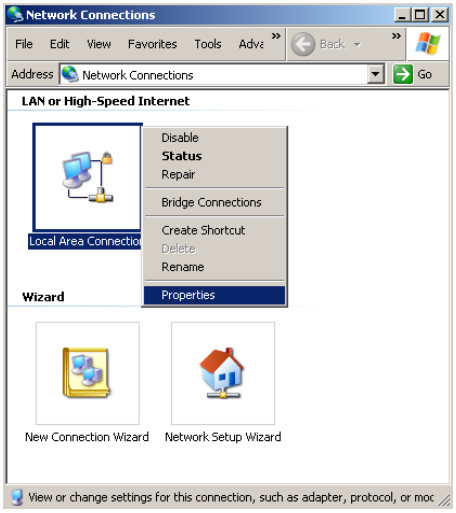
1. Connect an RJ45 cable to RJ45 ports on the projector and the PC (Laptop).



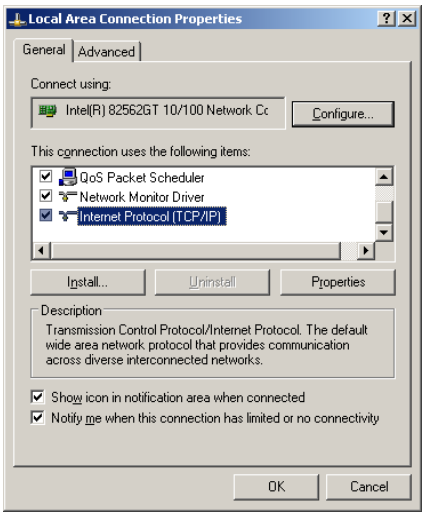
2. On the PC (Laptop), select **Start** → **Control Panel** → **Network Connections**.



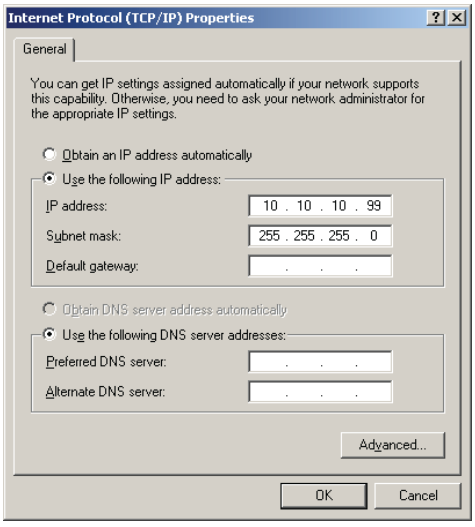
3. Right-click on **Local Area Connection**, and select **Properties**.



4. In the **Properties** window, select the **General** tab, and select **Internet Protocol (TCP/IP)**.
5. Click **Properties**.

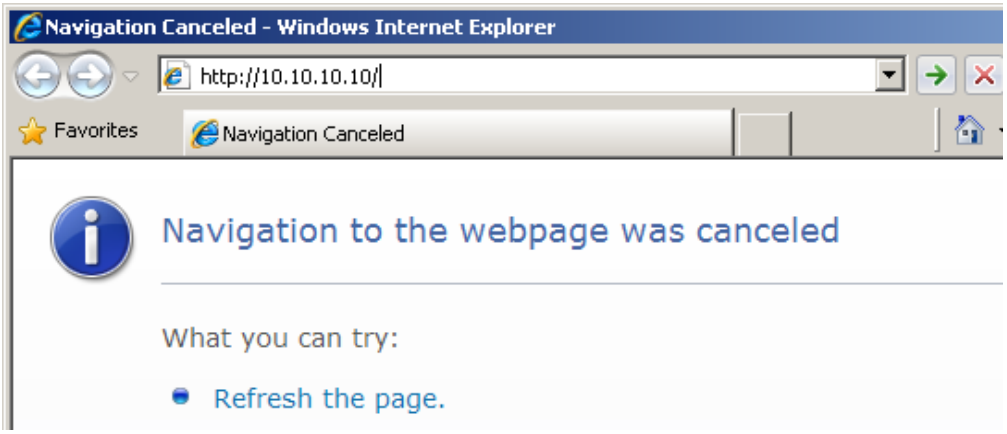


6. Click **Use the following IP address** and fill in the IP address and Subnet mask, then click **OK**.


Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 10 . 10 . 10 . 99
Subnet mask: 255 . 255 . 255 . 0
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

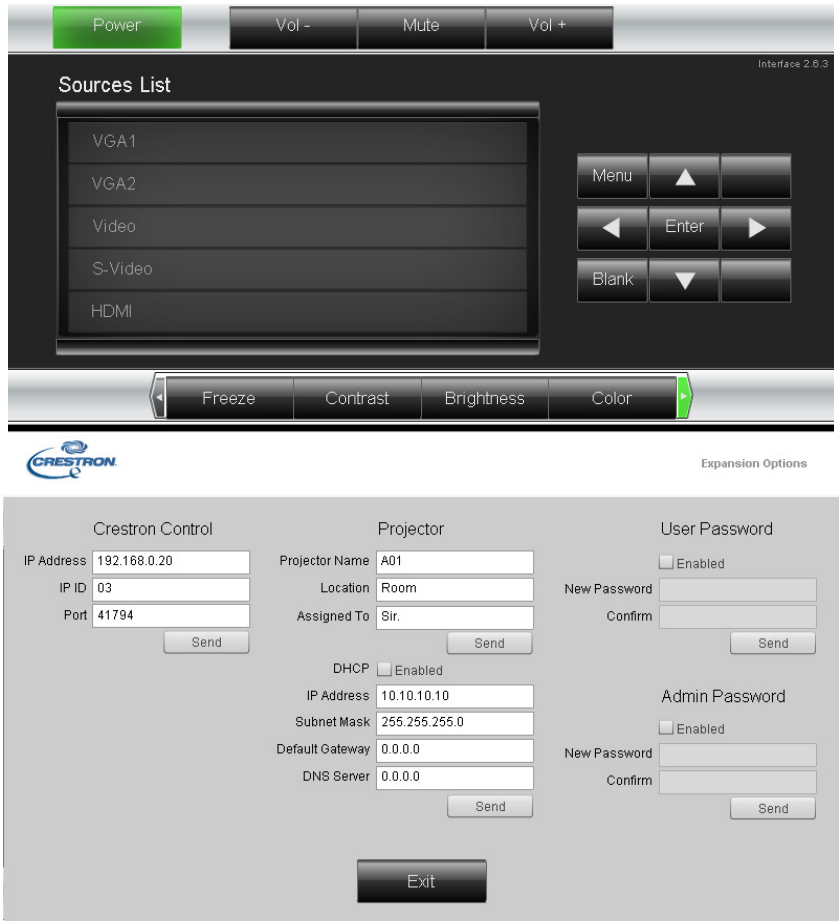
7. Press the **Menu** button on the projector.
8. Select **Installation II** → **Advanced**→ **Network**.
9. After getting into **Network**, input the following:
   - DHCP: Off
   - IP Address: 10.10.10.10
   - Subnet Mask: 255.255.255.0
   - Gateway: 0.0.0.0
   - DNS Server: 0.0.0.0
10. Press ↵ (Enter) / ► to confirm settings.

    Open a web browser
    (for example, Microsoft Internet Explorer with Adobe Flash Player 9.0 or higher).



11. In the Address bar, input the IP address: 10.10.10.10.
12. Press ↵ (Enter) / ►.

    The projector is setup for remote management. The LAN/RJ45 function displays as follows. Based on network web-page for the input-string in **tools** tab, the limitation for Input-Length is in the below list ("space" and the other punctuation key included):

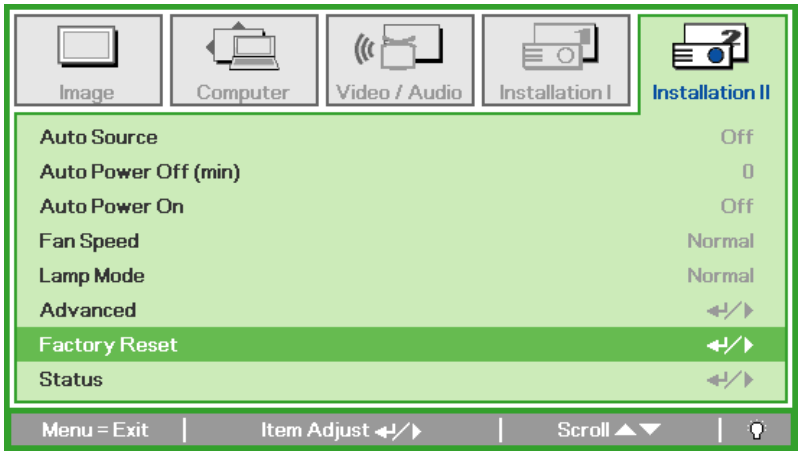


CATEGORY	ITEM	INPUT-LENGTH
Crestron Control	IP Address	14
	IP ID	2
	Port	5
Projector	Projector Name	10
	Location	9
	Assigned To	8
Network Configuration	DHCP (Enabled)	(N/A)
	IP Address	15
	Subnet Mask	15
	Default Gateway	15
	DNS Server	15
User Password	Enabled	(N/A)
	New Password	15
	Confirm	15
Admin Password	Enabled	(N/A)
	New Password	15
	Confirm	15

For more information, please visit http://www.crestron.com.

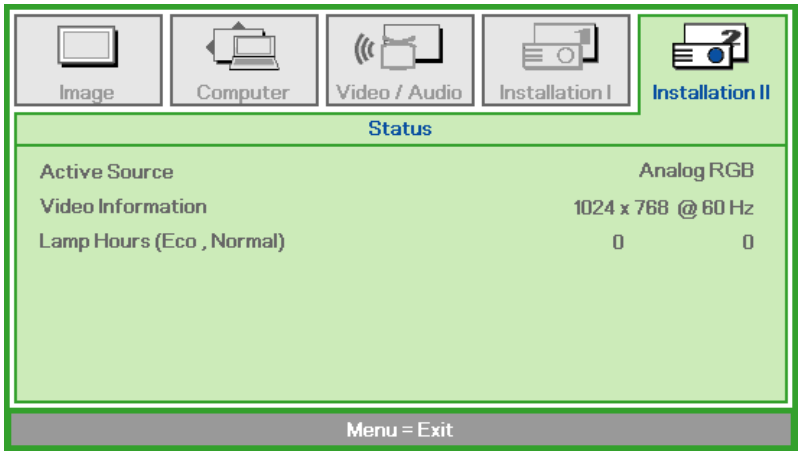
Factory Reset

Press the cursor ▲▼ button to move up and down in the **Installation II** menu. Select the **Factory Reset** sub menu and press ↵ (Enter) / ► to reset all the menu items to the factory default values (expect Language and Security Lock).



Status

Press the cursor ▲▼ button to move up and down in the **Installation II** menu. Select the **Installation II** sub menu and press ↵ (Enter) / ► to enter the **Status** sub menu.



ITEM	DESCRIPTION
Active Source	Display the activated source.
Video Information	Displays resolution/video information for RGB source and color standard for Video source.
Lamp Hours	Lamp hour used information is displayed. Eco and Normal counters are separated.

Replacing the Projection Lamp

The projection lamp should be replaced when it burns out. It should only be replaced with a certified replacement part, which you can order from your local dealer.

Important:
a. *The projection lamp used in this product contains a small amount of mercury.*

b. *Do not dispose this product with general household waste.*

c. *Disposal of this product must be carried out in accordance with the regulations of your local authority.*

Warning:
Be sure to turn off and unplug the projector at least 30 minutes before replacing the lamp. Failure to do so could result in a severe burn.

Caution:
In rare cases the lamp bulb may burn out during normal operation and cause glass dust or shards to be discharged outward from the rear exhaust vent.

Do not inhale or do not touch glass dust or shards. Doing so could result in injury.

Always keep your face away from the exhaust vent so that you do not suffer from the gas and broken shards of the lamp.

When removing the lamp from a ceiling-mounted projector, make sure that no one is under the projector. Glass fragments could fall if the lamp has been burned out.

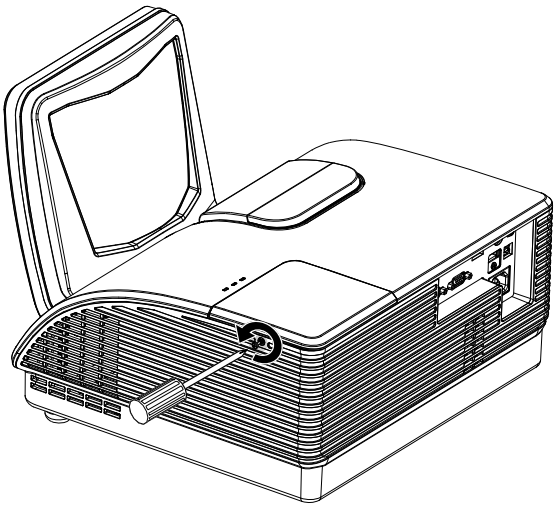
⚠ ***IF A LAMP EXPLODES***

If a lamp explodes, the gas and broken shards may scatter inside the projector and they may come out of the exhaust vent. The gas contains toxic mercury.

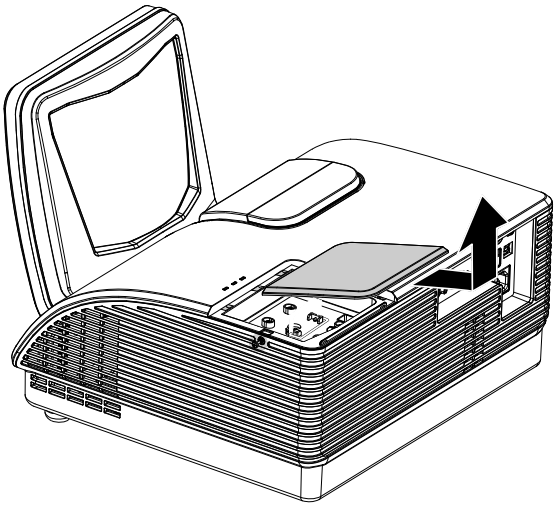
Open windows and doors for ventilation.

If you inhale the gas or the shards of the broken lamp enter your eyes or mouth, consult the doctor immediately.

1. Remove the single screw on the lamp compartment cover.



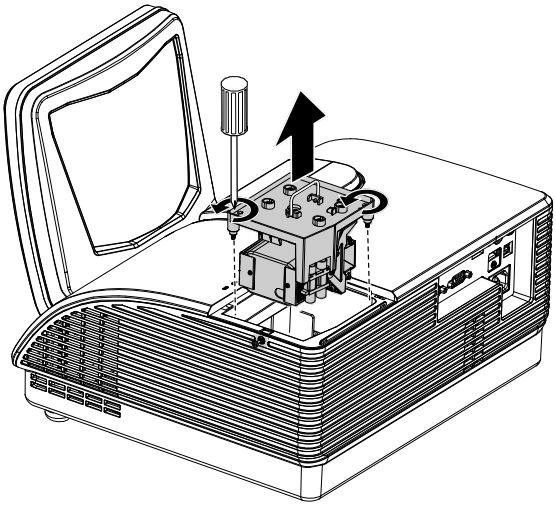
2. Remove the lamp compartment cover.



3. Remove the two screws from the lamp module.

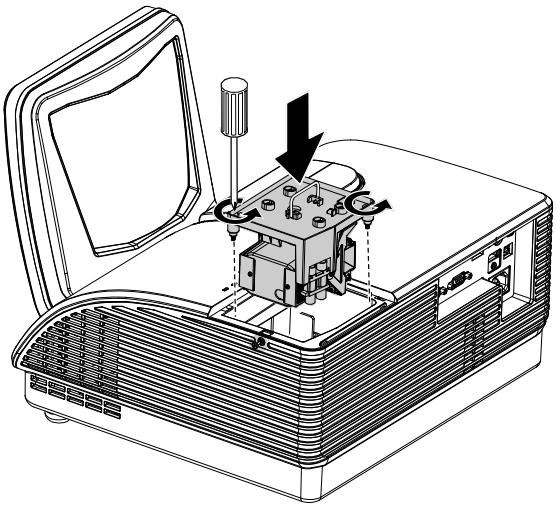
4. Lift the module handle up.

5. Pull firmly on the module handle to remove the lamp module.



6. Reverse steps 1 to 5 to install the new lamp module. While installing, align the lamp module with the connector and ensure it is level to avoid damage.

Note: The lamp module must sit securely in place and the lamp connector must be connected properly before tightening the screws.

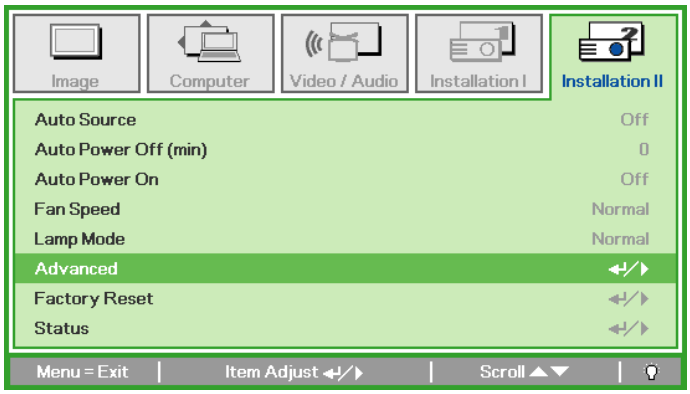


Resetting the Lamp

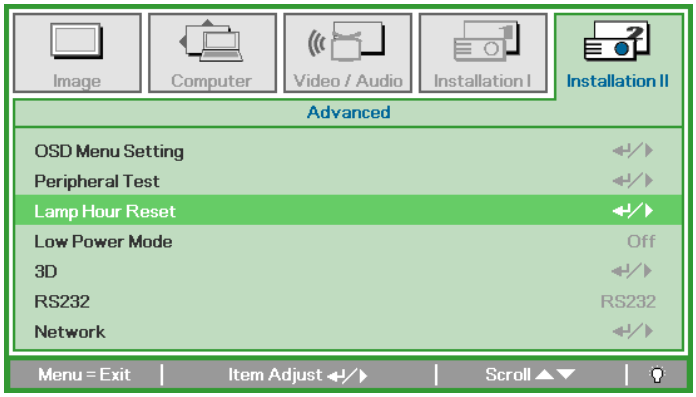
After replacing the lamp, you should reset the lamp hour counter to zero. Refer to the following:

1. Press the **MENU** button to open the OSD menu.

2. Press the cursor ◄► button to move to the **Installation II** menu. Press the cursor button to move down to **Advanced**.



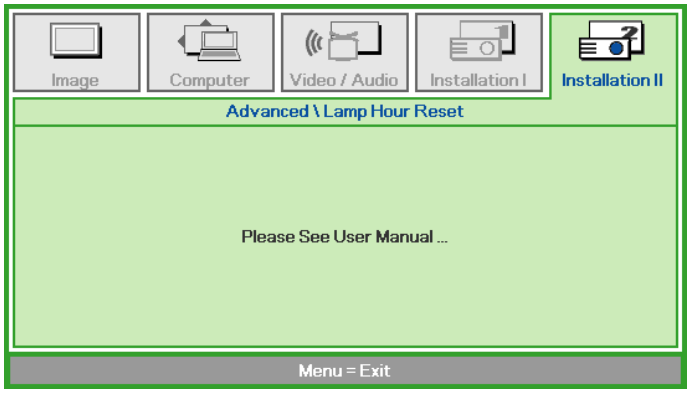
3. Press the cursor ▼▲ button to move down to **Lamp Hour Reset**.



4. Press the cursor ► or Enter button.

A message screen appears.

5. Press ▼▲◄► buttons to reset the lamp hour.



6. Press the **MENU** button to get back to Installation II.

Cleaning the Projector

Cleaning the projector to remove dust and grime will help ensure trouble-free operation.

Warning:
1. *Be sure to turn off and unplug the projector at least 30 minutes before cleaning. Failure to do so could result in a severe burn.*

2. *Use only a dampened cloth when cleaning. Do not allow water to enter the ventilation openings on the projector.*

3. *If a little water gets into the projector interior while cleaning, leave unplugged in a well-ventilated room for several hours before using.*

4. *If a lot of water gets into the projector interior when cleaning, have the projector serviced.*

Cleaning the Lens

You can purchase optic lens cleaner from most camera stores. Refer to the following to clean the projector lens.

1. Apply a little optic lens cleaner to a clean soft cloth. (Do not apply the cleaner directly to the lens.)
2. Lightly wipe the lens in a circular motion.

Caution:
1. *Do not use abrasive cleaners or solvents.*

2. *To prevent discoloration or fading, avoid getting cleaner on the projector case.*

Cleaning the Case

Refer to the following to clean the projector case.

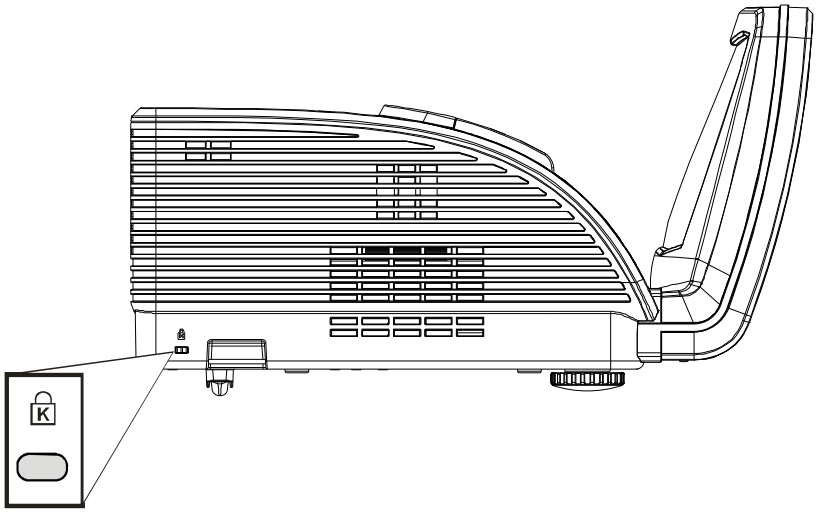
1. Wipe off dust with a clean dampened cloth.
2. Moisten the cloth with warm water and mild detergent (such as used to wash dishes), and then wipe the case.
3. Rinse all detergent from the cloth and wipe the projector again.

Caution:
To prevent discoloration or fading of the case, do not use abrasive alcohol-based cleaners.

Using the Physical Lock

Using the Kensington® Lock

If you are concerned about security, attach the projector to a permanent object with the Kensington slot and a security cable.



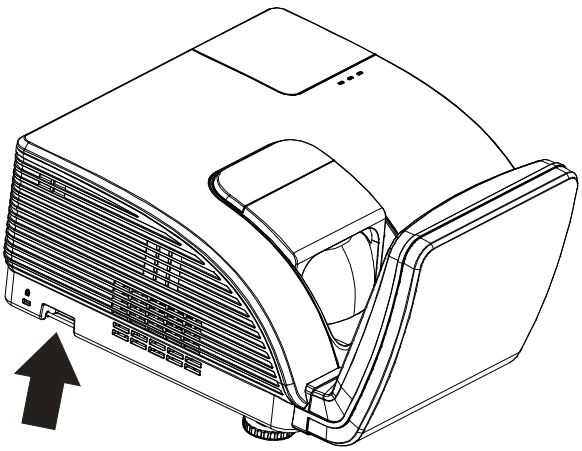
Note:
Contact your vendor for details on purchasing a suitable Kensington security cable.

The security lock corresponds to Kensington's MicroSaver Security System. If you have any comment, contact: Kensington, 2853 Campus Drive, San Mateo, CA 94403, U.S.A. Tel: 800-535-4242, http://www.Kensington.com.

Using the Security Chain Lock

In addition to the password protection function and the Kensington lock, the Security Chain Opening helps protect the PROJECTOR from unauthorized use.

See the following picture.



Caution:
Do NOT touch the aspheric mirror.

TROUBLESHOOTING

Common problems and solutions

These guidelines provide tips to deal with problems you may encounter while using the projector. If the problem remains unsolved, contact your dealer for assistance.

Often after time spent troubleshooting, the problem is traced to something as simple as a loose connection. Check the following before proceeding to the problem-specific solutions.

- *Use some other electrical device to confirm that the electrical outlet is working.*
- *Ensure the projector is turned on.*
- *Ensure all connections are securely attached.*
- *Ensure the attached device is turned on.*
- *Ensure a connected PC is not in suspending mode.*
- *Ensure a connected notebook computer is configured for an external display. (This is usually done by pressing an Fn-key combination on the notebook.)*

Tips for Troubleshooting

In each problem-specific section, try the steps in the order suggested. This may help you to solve the problem more quickly.

Try to pin point the problem and thus avoid replacing non-defective parts.
For example, if you replace batteries and the problem remains, put the original batteries back and go to the next step.

Keep a record of the steps you take when troubleshooting: The information may be useful when calling for technical support or for passing on to service personnel.

LED Error Messages

Error Code Messages	Warning LED	Lamp LED Blink	Power LED Blink
Power On	0	0	Blue
Power Off	0	0	Orange
Cooling	0	0	Flashing
Over Temperature	ON	0	0
Thermal Break Sensor error	0	0	4
Burner Fan error	0	1	6
Lamp Fan error	0	2	6
Lamp Door Open	0	0	7
DMD error	0	0	8

In the event of an error, please disconnect the AC power cord and wait for one (1) minute before re-starting the projector. If the Power or Lamp LEDs are still blinking or the Over Temp LED is lit, or any other situation that isn't listed in the chart above, please contact your service center.

Image Problems

Problem: No image appears on the screen

1. Verify the settings on your notebook or desktop PC.
2. Turn off all equipment and power up again in the correct order.

Problem: The image is blurred

1. Adjust the **Focus** on the projector.
2. Press the **Auto** button on the remote control or projector.
3. Ensure the projector-to-screen distance is within the 10-meter (33-feet) specified range.
4. Check that the projector lens is clean.

Problem: The image is wider at the top or bottom (trapezoid effect)

1. Position the projector so it is as perpendicular to the screen as possible.
2. Use the **Keystone** button on the remote control or projector to correct the problem.

Problem: The image is reversed

Check the **Projection** setting on the **Installation I** menu of the OSD.

Problem: The image is streaked

1. Set the **Frequency** and **Tracking** settings on the **Computer** menu of the OSD to the default settings.
2. To ensure the problem is not caused by a connected PC's video card, connect to another computer.

Problem: The image is flat with no contrast

Adjust the **Contrast** setting on the **Image** menu of the OSD.

Problem: The color of the projected image does not match the source image.

Adjust the **Color Temperature** and **Gamma** settings on the **Image** menu of the OSD.

Lamp Problems

Problem: There is no light from the projector

1. Check that the power cable is securely connected.
2. Ensure the power source is good by testing with another electrical device.
3. Restart the projector in the correct order and check that the Power LED is green.
4. If you have replaced the lamp recently, try resetting the lamp connections.
5. Replace the lamp module.
6. Put the old lamp back in the projector and have the projector serviced.

Problem: The lamp goes off

1. Power surges can cause the lamp to turn off. Re-plug power cord. When the Power LED is on, press the power button.
2. Replace the lamp module.
3. Put the old lamp back in the projector and have the projector serviced.

Remote Control Problems

Problem: The projector does not respond to the remote control

1. Direct the remote control towards remote sensor on the projector.
2. Ensure the path between remote and sensor is not obstructed.
3. Turn off any fluorescent lights in the room.
4. Check the battery polarity.
5. Replace the batteries.
6. Turn off other Infrared-enabled devices in the vicinity.
7. Have the remote control serviced.

Audio Problems

Problem: There is no sound

1. Adjust the volume on the remote control.
2. Adjust the volume of the audio source.
3. Check the audio cable connection.
4. Test the source audio output with other speakers.
5. Have the projector serviced.

Problem: The sound is distorted

1. Check the audio cable connection.
2. Test the source audio output with other speakers.
3. Have the projector serviced.

Having the Projector Serviced

If you are unable to solve the problem, you should have the projector serviced. Pack the projector in the original carton. Include a description of the problem and a checklist of the steps you took when trying to fix the problem: The information may be useful to service personnel. For servicing, return the projector to the place you purchased it.

HDMI Q & A

Q. What is the difference between a "Standard" HDMI cable and a "High-Speed" HDMI cable?

Recently, HDMI Licensing, LLC announced that cables would be tested as Standard or High-Speed cables.

- Standard (or "category 1") HDMI cables have been tested to perform at speeds of 75Mhz or up to 2.25Gbps, which is the equivalent of a 720p/1080i signal.
- High Speed (or "category 2") HDMI cables have been tested to perform at speeds of 340Mhz or up to 10.2Gbps, which is the highest bandwidth currently available over an HDMI cable and can successfully handle 1080p signals including those at increased color depths and/or increased refresh rates from the Source. High-Speed cables are also able to accommodate higher resolution displays, such as WQXGA cinema monitors (resolution of 2560 x 1600).

Q. How do I run HDMI cables longer than 10 meters?

There are many HDMI Adopters working on HDMI solutions that extend a cable's effective distance from the typical 10 meter range to much longer lengths. These companies manufacture a variety of solutions that include active cables (active electronics built into cables that boost and extend the cable's signal), repeaters, amplifiers as well as CAT5/6 and fiber solutions.

Q. How can I tell if a cable is an HDMI certified cable?

All HDMI products are required to be certified by the manufacturer as part of the HDMI Compliance Test Specification. However, there may be instances where cables bearing the HDMI logo are available but have not been properly tested. HDMI Licensing, LLC actively investigates these instances to ensure that the HDMI trademark is properly used in the market. We recommend that consumers buy their cables from a reputable source and a company that is trusted.

For more detail information check http://www.hdmi.org/learningcenter/faq.aspx#49

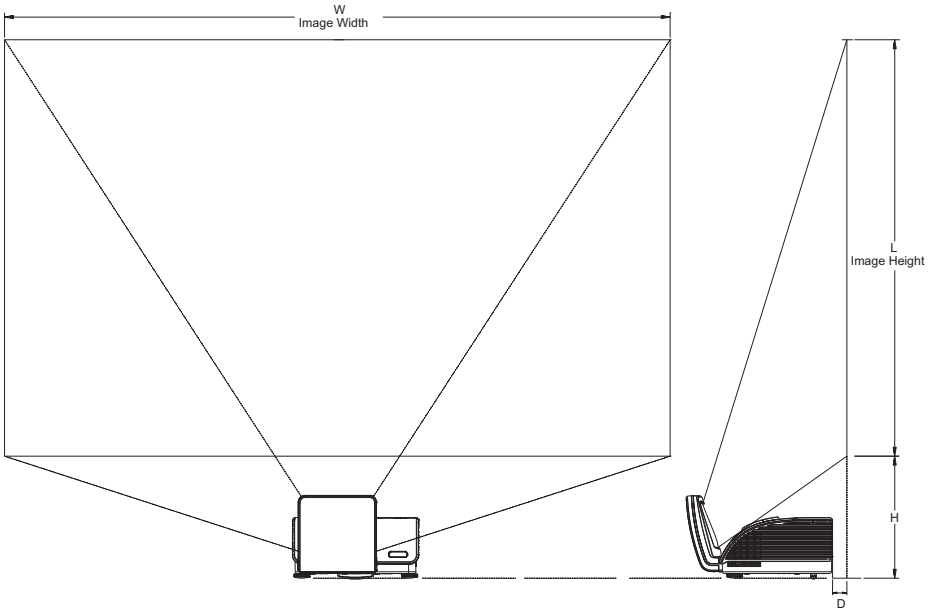
SPECIFICATIONS

Specifications

Note: *For questions regarding product specifications, please contact your local distributor.*

Model name	D795WT	D791ST
Display type	TI DMD 0.65" WXGA	TI DMD 0.55" XGA
Resolution	WXGA 1280 x 800 Native	XGA 1024 x 768 Native
Projection distance	22.4 mm ~ 62.3 mm(+/-10mm)	
Projection screen size	87 to 97 inches	73 to 82 inches
Projection lens	Fix	
Vertical keystone correction	+/- 30 steps	
Projection methods	Front, Rear, Desktop/Ceiling (Rear, Front)	
Data compatibility	VGA, SVGA, XGA, SXGA, SXGA+, UXGA, Mac	
SDTV/EDTV/ HDTV	480i, 576i, 480p, 576p, 720p, 1080i, 1080p	
Video compatibility	NTSC/NTSC 4.43, PAL (B/G/H/I/M/N/60), SECAM	
H-Sync	15.6 – 91.1 kHz	
V-Sync	43 – 85 Hz	
Safety certification	FCC-B, UL, CB, CE, CCC, KC, SASO, PCT, Argentina TUV, NOM, PSB	
Operation temperature	5° ~ 40°C	
Dimensions	354 mm (W) x 219 mm (H) x 411 mm (D)	
AC Input	AC Universal 100 – 240, Typical @ 110VAC (100 – 240)/+-10%	
Power consumption	290W / 250W (ECO Type)	
Stand By	<0.5 watts	
Lamp	220W	
Audio speaker	10W mono speaker	
Input Terminals	VGA x 2	
	Audio jack x 1	
	S-Video x 1	
	Composite video x 1	
	HDMI x 1	
Output Terminals	VGA x 1	
	Audio jack x 1	
Control Terminals	RS-232C	
	RJ45	
	USB (Service only)	
Security	Kensington lock	

Projection Distance vs. Projection Size



Projection Distance and Size Table

	D795WT		D791ST	
	WXGA		XGA	
	16:10		4:3	
Distance (D)	62.3+/-10mm	22.4+/-10mm	62.3+/-10mm	22.4+/-10mm
Diagonal	97"	87"	82”	73”
Image Width (W)	2089mm	1868mm	1671mm	1494mm
Image height (L)	1305mm	1167mm	1253mm	1120mm
H	368.3+/-50mm	342+/-50mm	378+/-50mm	365.5+/-50mm

Timing Mode Table

The projector can display several resolutions. The following table outlines the resolutions that can be displayed by the projector.

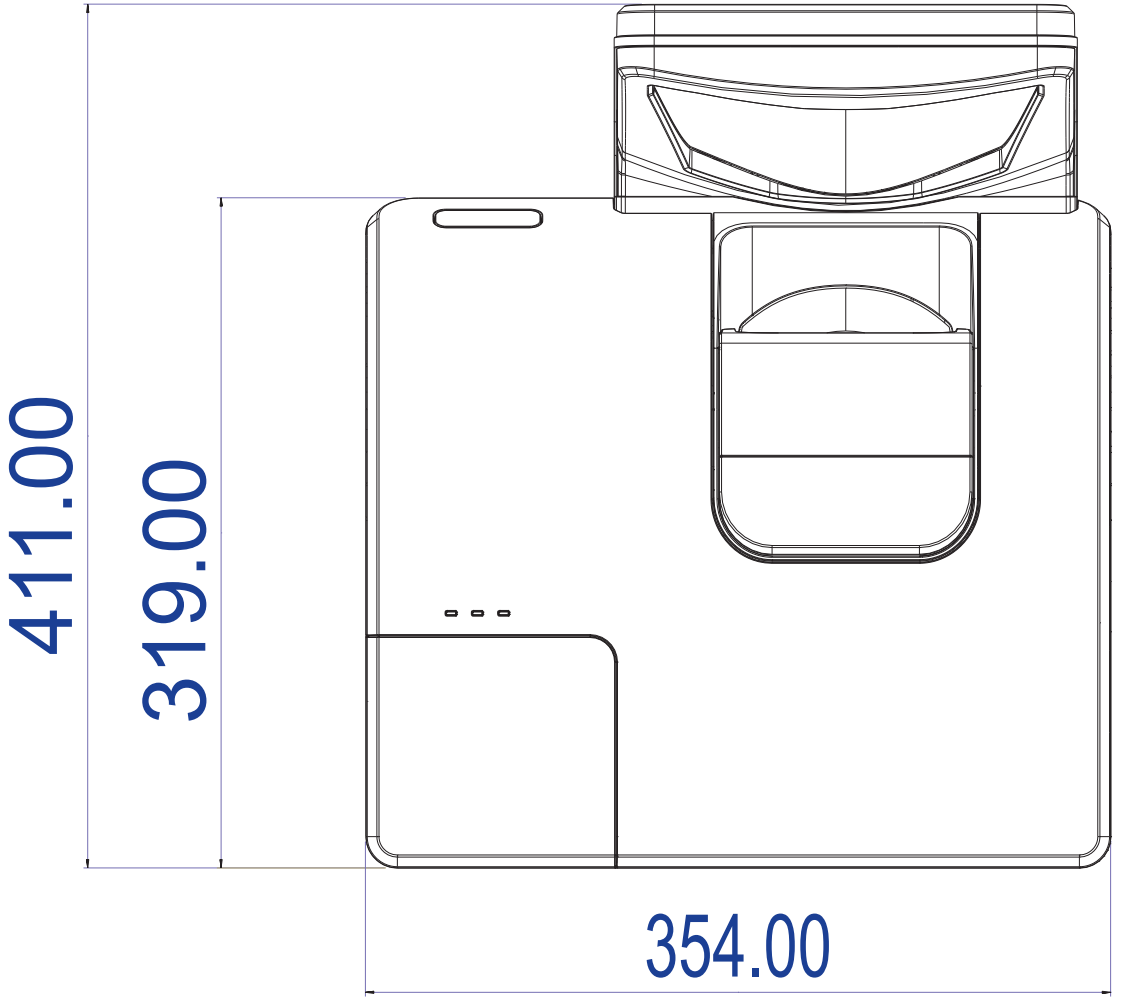
SIGNAL	RESOLUTION	H-SYNC (KHZ)	V-SYNC (HZ)	COMPOSITE / S-VIDEO	COMPONENT	RGB (ANALOG)	DVI/ HDMI (DIGITAL)
NTSC	—	15.734	60.0	O	—	–	–
PAL/SECAM	—	15.625	50.0	O	—	–	–
VESA	720 x 400	37.9	85.0	—	—	O	O
	640 x 480	31.5	60.0	—	—	O	O
	640 x 480	37.9	72.8	—	—	O	O
	640 x 480	37.5	75.0	—	—	O	O
	640 x 480	43.3	85.0	—	—	O	O
	800 x 600	35.2	56.3	—	—	O	O
	800 x 600	37.9	60.3	—	—	O	O
	800 x 600	46.9	75.0	—	—	O	O
	800 x 600	48.1	72.2	—	—	O	O
	800 x 600	53.7	85.1	—	—	O	O
	1024 x 768	48.4	60.0	—	—	O	O
	1024 x 768	56.5	70.1	—	—	O	O
	1024 x 768	60.0	75.0	—	—	O	O
	1024 x 768	68.7	85.0	—	—	O	O
	1280 x 800	49.7	59.8	—	—	O	O
	1280 x 1024	64.0	60.0	—	—	O	O
	1280 x 1024	80.0	75.0	—	—	O	O
	1280 x 1024	91.1	85.0	—	—	O	O
	1400 x 1050	65.3	60.0	—	—	O	O
	1600 x 1200	75.0	60	—	—	O	O
Apple Macintosh	640 x 480	35.0	66.7	—	—	O	O
	832 x 624	49.7	74.5	—	—	O	O
	1024 x 768	60.2	74.9	—	—	O	O
	1152 x 870	68.7	75.1	—	—	O	O
SDTV	480i	15.734	60.0	—	O	—	O
	576i	15.625	50.0	—	O	—	O
EDTV	576p	31.3	50.0	—	O	—	O
	480p	31.5	60.0	—	O	—	O

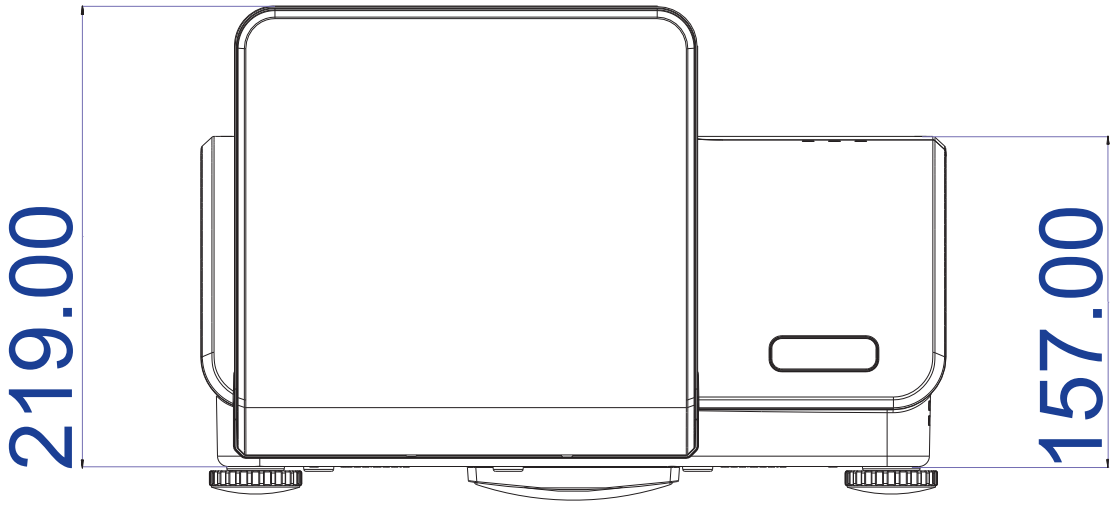
SIGNAL	RESOLUTION	H-SYNC (KHZ)	V-SYNC (HZ)	COMPOSITE / S-VIDEO	COMPONENT	RGB (ANALOG)	DVI/ HDMI (DIGITAL)
HDTV	720p	37.5	50.0	—	O	—	O
	720p	45.0	60.0	—	O	—	O
	1080i	33.8	60.0	—	O	—	O
	1080i	28.1	50.0	—	O	—	O
	1080p	27	24	—	O	—	O
	1080p	28	25	—	O	—	O
	1080p	33.7	30	—	O	—	O
	1080p	67.5	60.0	—	O	—	O
	1080p	56.3	50.0	—	O	—	O

O: Frequency supported

—: Frequency not supported

Projector Dimensions (mm)





REGULATORY COMPLIANCE

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/ TV technician for help.

CAUTION:

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

RF exposure warning

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

Canada

This class B digital apparatus complies with Canadian ICES-003.

Safety Certifications

FCC-B, UL, CB, CE, CCC, KC, SASO, PCT, Argentina TUV, NOM, and PSB

APPENDIX I

RS-232C Protocol

RS232 Setting

Baud rate:	**9600**
Parity check:	**None**
Data bit:	**8**
Stop bit:	**1**
Flow Con-trol	**None**

Minimum delay for next command: **1ms**

Control Command Structure

	Header code	Command code	Data code	End code
HEX		**Command**	**Data**	**0Dh**
ASCII	**'V'**	**Command**	**Data**	**CR**

Operation Command

Note:
XX=00-98, projector's ID, XX=99 is for all projectors
Return Result P=Pass / F=Fail
n: 0:Disable/1: Enable/Value(0~9999)

Command Group 00			
ASCII	**Function**	**Description**	**Return Result**
VXXS0001	Power On		P/F
VXXS0002	Power Off		P/F
VXXS0003	Resync		P/F
VXXG0004	Get Lamp Hours		Pn/F
VXXS0006	System Reset		P/F
VXXG0007	Get System Status	0:Reset 1:Standby 2:Operation 3:Cooling	Pn/F
VXXG0008	Get F/W Version		Pn/F

Command Group 01			
ASCII	**Function**	**Description**	**Return Value**
VXXG0101	Get Brightness	n=0~100	Pn/F
VXXS0101n	Set Brightness	n=0~100	P/F
VXXG0102	Get Contrast	n=0~100	Pn/F
VXXS0102n	Set Contrast	n=0~100	P/F
VXXG0103	Get Color	n=0~100	Pn/F
VXXS0103n	Set Color	n=0~100	P/F
VXXG0104	Get Tint	n=0~100	Pn/F
VXXS0104n	Set Tint	n=0~100	P/F
VXXG0105	Get Sharpness	0~31	Pn/F

VXXS0105n	Set Sharpness	0~31	P/F
VXXG0106	Get Color Temperature	0:Cold 1:Normal 2:Warm	Pn/F
VXXS0106n	Set Color Temperature	0:Cold 1:Normal 2:Warm	P/F
VXXG0107	Get Gamma	0:PC 1:MAC 2:Video 3:Chart 4: B&W	Pn/F
VXXS0107n	Set Gamma	0:PC 1:MAC 2:Video 3:Chart 4: B&W	P/F

Command Group 02			
ASCII	**Function**	**Description**	**Return Value**
VXXS0201	Select RGB		P/F
VXXS0202	Select RGB2		P/F
VXXS0203	Select DVI		P/F
VXXS0204	Select Video		P/F
VXXS0205	Select S-Video		P/F
VXXS0206	Select HDMI		P/F
VXXS0207	Select BNC		P/F
VXXG0220	Get Current Source	Return 1:RGB 2:RGB2 3:DVI 4:Video 5:S-Video 6:HDMI 7:BNC	Pn/F

Command Group 03			
ASCII	**Function**	**Description**	**Return Value**
VXXG0301	Get Scaling	0: Fill 1: 4:3 2: 16:9 3 :Letter Box 4 :Native	Pn/F
VXXS0301n	Set Scaling	0: Fill 1: 4:3 2: 16:9 3 :Letter Box 4 :Native	P/F
VXXG0302	Blank		Pn/F

VXXS0302n	Blank		P/F
VXXG0303	Auto Keystone On		Pn/F
VXXS0303n	Auto Keystone On		P/F
VXXG0304	Freeze On		Pn/F
VXXS0304n	Freeze On		P/F
VXXG0305	Volume	n=0~8	Pn/F
VXXS0305n	Volume	n=0~8	P/F
VXXG0308	Projection Mode	0:Front 1:Rear 2:Ceiling 3:Rear+Ceiling	Pn/F
VXXS0308n	Projection Mode	0:Front 1:Rear 2:Ceiling 3:Rear+Ceiling	P/F
VXXG0309	Get vertical keystone value	n= -40~40	Pn/F
VXXS0309n	Set vertical keystone value	n= -40~40	P/F
VXXG0311	Adjust the zoom	n=-10~10	Pn/F
VXXS0311n	Adjust the zoom	n=-10~10	P/F

Command Group 04 (Remote Control)			
ASCII	**Function**	**Description**	**Return Value**
VXXS0401	UP arrow		P/F
VXXS0402	DOWN arrow		P/F
VXXS0403	LEFT arrow		P/F
VXXS0404	RIGHT arrow		P/F
VXXS0405	POWER		P/F
VXXS0406	EXIT		P/F
VXXS0407	INPUT		P/F
VXXS0408	AUTO		P/F
VXXS0409	KEYSTONE+		P/F
VXXS0410	KEYSTONE-		P/F
VXXS0411	MENU		P/F
VXXS0412	STATUS		P/F
VXXS0413	MUTE		P/F
VXXS0414	ZOOM+		P/F
VXXS0415	ZOOM-		P/F
VXXS0416	BLANK		P/F
VXXS0417	FREEZE		P/F
VXXS0418	VOLUME+		P/F
VXXS0419	VOLUME-		P/F
VXXS0420	Enter		P/F